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SYDNEY: SATURDAY, NOVEMBER 15, 1924.

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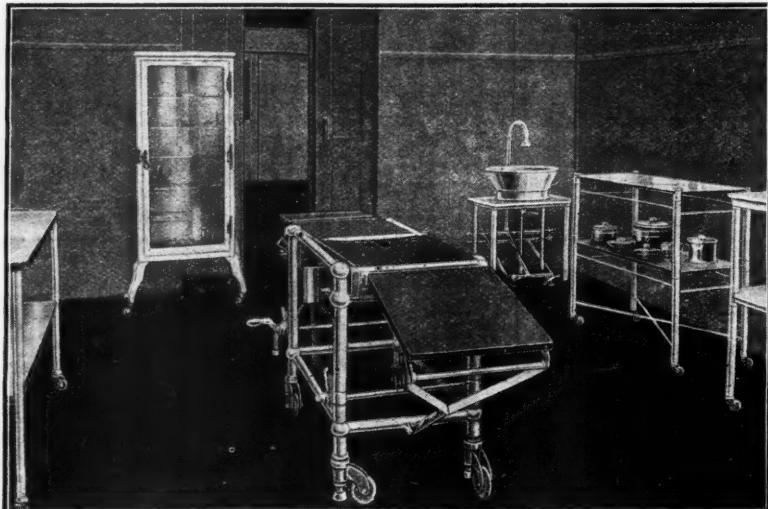
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HELIO-THERAPY.¹

By SIR DAVID HARDIE, M.D., LL.D.,
Brisbane.

WHEN in England I visited Sir Henry Gauvain's establishment for cripples at Alton and was greatly impressed with the magnificent work done at this sanatorium. As, however, one has to go to Dr. Rollier's clinics at Leysin, Switzerland, to see heliotherapy in its full development and as there are some things in common between the two, I shall confine my remarks to the latter.

Dr. Rollier began his work at Leysin twenty-one years ago, in a comparatively small house which he altered somewhat to meet his views on the utilization of the sun's rays in the treatment of surgical tuberculosis, rickets and allied diseases. This house is still in full operation and the one to which visitors are first invited on arrival.

From this small beginning his work extended to such an extent that he now occupies over thirty houses, some of the more recent being palatial buildings, erected for the purpose and provision made for the accommodation in all of nearly a thousand patients. His central clinic is an impos-

ing building of four storeys, where provision is made for administrative work, radiography, radiotherapy, bacteriology, operating room, dining and smoking room for staff and visitors, library and concert hall in addition to wards and balconies for ninety patients. The balconies are partly open to the sky and partly covered, while above all is a solarium which covers the roof of the building. The floors of the rooms and balconies are on a level, so that the beds may be wheeled about as desired without jolting. Lifts are provided for raising or lowering the beds to and from the solarium or from one floor to another. The beds are high for easier manipulation and more especially to allow the patient to see and admire the beauties of Nature over the balcony railing.

Patients are of all ages and come from every country in the world.

I shall not readily forget my first introduction to Dr. Rollier's original clinic. The time was eleven o'clock in the morning of a somewhat cloudy winter's day in January last. On the first balcony we entered there were some ten or twelve beds, the patients lying, some in the dorsal and some in the ventral position, in a shady part of the balcony with a light covering of blankets over them. They had had their sun bath. For my inspection these coverings were now taken off, leaving the patient

¹ Read at a meeting of the Queensland Branch of the British Medical Association on September 5, 1924.

entirely uncovered except for a pelvic cloth. Some of them had been in bed for one or two years. Some appeared in robust health. In most cases the bodies were full and plump, the muscles well developed with rounded contour. They had had no massage. Their skin was bronzed. The temperature of the air was under freezing point. Snow lay on the ground to the depth of about two metres. The patients apparently did not feel the cold on their naked bodies. I had never seen the like.

Technique.

It is not my intention to describe the technique followed by Dr. Rollier in the various forms of tuberculosis met with. Furthermore, I should like to say at once that the notes I shall give you tonight, are based on what I learned during a too brief visit of two days to Leysin, supplemented by the reading of Dr. Rollier's most excellent and interesting book on the subject, to which I shall frequently refer. My object will be attained if, by drawing your attention to the extreme value of helio-therapy in the treatment of surgical tuberculosis and rickets, you may be induced to visit Leysin and see for yourselves.

In the initial stage of treatment, Dr. Rollier emphasizes the need for great caution. In this direction he goes so far as to allow of a period of two weeks' duration for acclimatization of the patient to his new environment of sun and fresh air and the altitude of the locality—five thousand feet above sea level—before insolation begins. He maintains that emaciated children from the dark slums of the city are unable without undue reaction to bear the stimulus of fresh air, much less that of the sun unless in graduated doses.

When this preparatory stage is over, treatment by exposure of the naked body to the sun's rays commences. This is done on an ordinary broad balcony that admits the morning sun. It follows a routine course, no matter where the disease may be located, on the ground that, as the reaction to light is an unknown quantity and varies in different individuals, it is better to start the treatment by exposing first the least susceptible and most distant part.

In every case insolation starts by exposure of the bare feet alone. The exposure lasts for only five minutes, repeated at intervals, two or three times the first day. On the second day the feet are exposed for ten minutes and the legs for five. On the third day the feet for fifteen minutes, the legs for ten and the thighs and hands for five. Thereafter with all needful precautions, the forearms and arms and finally the abdomen and thorax are laid bare and come successively under exposure.

Each patient is watched carefully and treated according to the reactions that appear, the principle of gradual progression being strictly adhered to throughout.

The usual indications of an overdose, in addition to excessive local hyperaemia, are a rise of temperature, quickened pulse and restlessness and, should these appear, the treatment may be suspended for a day or two or the period of exposure reduced.

It is found that in patients whose skin easily undergoes pigmentation, the rate of progress is all the greater. For this reason, patients with a fair complexion must have more attention, as they are more likely to receive an overdose before pigmentation takes place. Once pigmentation is established, there is practically no fear of an overdose and the exposure is extended, until in a few weeks the whole body is insolated with intervals of rest for three or four hours a day. The question of pigmentation is considered to be of such importance in treatment that, if it does not appear to the usual degree, Dr. Rollier suspects the presence of some latent disease.

Nor on a cloudy day is treatment suspended. Exposure to diffuse light is not without its value, though naturally in the absence of the heat of direct sunlight it must be more intermittent and less prolonged.

Spinal Tuberculosis.

Let me for illustration take a case of spinal caries in the dorsal region and briefly follow it through.

First of all the patient is placed on a hard mattress and immobilization secured by a waistcoat of canvas, buckled across the chest and attached by straps to the head and foot of the bed, the knees and shoulders being also fixed by straps. No other apparatus is used for immobilization, plaster having been long discarded.

As soon as the preparatory stage of acclimatization is over, insolation in the sun's rays commences, it of course being understood that as the patient is in the dorsal position, the upper surface alone can come under direct treatment. The feet are first exposed in the usual way, then the lower and upper extremities and lastly the front of the abdomen and thorax. When it comes to the latter, the canvas waistcoat is unbuckled and opened out, so as to allow the sun's rays to bear directly on the bare chest, when it is considered advisable to do so. This is not always the case. For if the caries be complicated by the presence of tuberculous glands in the mediastinum or tuberculosis in the lung, as indicated by the radiogram, insolation of the chest may either have to be left in abeyance for the time being or done with great care. It is found that tuberculous infections in this area are more sensitive to direct sunlight than in any other part of the body on account of their increased vascularity.

Meantime the spine has received early attention and, as a rule, is protected by pads and cushions of millet fibre or sand from the start. For deformity let me quote Dr. Rollier:

When this exists we endeavour to reduce it by means of gentle pressure by the weight of the body alone. Under the deformity is placed first a cushion of millet husk, then one filled with sand, the thickness being gradually increased. At first the cushion should be of such consistency as to mould itself to the whole surface of the projection; in this way the production of scoliosis, due to pressure acting unevenly on the gibbus is avoided. When, however, this is markedly diminished and flattened, the skin over it being no longer sensitive, the cushion is replaced by a rectangular block of wood, the thickness of which varies according to the size of the deformity and the region of the column affected. Wood is better than sand, because its shape does not

alter with pressure, and because it remains absolutely smooth and dry, thus reducing the tendency to bed sore. Patients rapidly become accustomed to the hardness and soon come to prefer it to a soft support.

Insolation is now in full progress and when in course of time it is seen that all symptoms of active disease—pain, tenderness and muscular contraction—have gone and the skiagrams give evidence of advancing calcification, the patient is moved round to the ventral position and a thick triangular cushion of hard material placed under the chest on which also the elbows rest. The head, neck and upper part of the body are thus raised to an angle of about 45°. The change is not only pleasing to the patient, but it has this very great advantage of bringing the vertebral muscles of the neck and dorsal region into action and of allowing free exposure of the back to the sun's rays. The turning movement is repeated for two or three hours daily, for change of position and insolation. This results in a rapid filling out and development of the back muscles so that "after some months the patient will have provided himself with a magnificent corset to support the vertebral column."

After a time, varying according to circumstances from one to two years and only when all clinical evidence is satisfactory and the radiograms give evidence of complete calcification, the patient is allowed out of bed. The spinal column is by this time strengthened by the strong muscular support that insolation has provided, but as a rule this is supplemented for a few months by a perforated celluloid corset supported from the iliac crest.

Meantime the sun baths are kept up daily, the corset in due time discarded and games and sport begun, not the least enjoyable of these being lugging and skiing in the nude state on the winter snow under the glorious sun of the Alpine mountains. Nor is this to be wondered at. When one remembers that in the coldest days of winter the patient is treated in bed under the direct rays of a bright sun for three or four hours, it is not surprising that under similar atmospheric conditions the convalescent patient prefers his insolation out of doors. With a covering only to his head and loins he glories in these sports of the Alpine winter. A real, up-to-date representative of the Greek athlete he reminds us of the original meaning of the word gymnastics—from *γυμνός* = naked. But it is not all play.



FIGURE I.
A winter class. (After Rollier.)

The Work Cure.

Throughout the whole period of residence in hospital the patient is encouraged to do some manual work.

In the horizontal dorsal position, he may do "weaving, crochet and painting" and in the ventral position "carving, basket and card box" making and such-like. It is found that the patient thoroughly enjoys work of the kind. It provides a change that cannot be other than beneficial to the mind and therefore to the body. It brightens the life of those who are doomed for the time being, to a life of compulsory inactivity and dreary monotony and brings with it the cheerful hope and assurance that they are able to contribute something towards the cost of maintenance.

When the patient is convalescent and able to get about, it is not all play, for work is provided in workshops and farm colonies until complete recovery takes place. He now leaves for home,

grateful for what has been done for him, fortified with the knowledge that fresh air and sunshine are essential to the maintenance of a healthy happy life and with the assurance that, if he bears this in mind, he may with his fresh store of buoyant energy and strong physical development resume the battle of life with every hope of success.

Tuberculosis in Other Areas.

In technique the principle remains the same throughout. In the case of

the long bones and joints care must be taken that in the application of apparatus for correcting mal-position and securing immobilization the affected parts are freely accessible to the sun's direct rays. Furthermore, as soon as it can be done without discomfort, the patient is moved round to the ventral position, so that the posterior muscles, such as the popliteal and gluteal may be insolated.

As the result of treatment by insolation a fair amount of movement is obtained in the great majority of stiff joints. Sometimes in apparently hopeless cases the result is brilliant. Neither passive movement nor massage is employed. Nor as a rule is operation required. Excision of a joint is abandoned, except on rare occasions of the knee joint. Large sequestra usually require removal.

A cold abscess is left alone unless it threatens to open spontaneously, in which case the tension is relieved by aspiration. Should the abscess open itself or be incised, it stands the chance of becoming



FIGURE II.

Tuberculous peritonitis with effusion, pulmonary tuberculosis and pleural effusion; female, aged sixteen years. (After Rollier.)

infected by foreign pyogenic organisms, leading perhaps to a sinus which may give no end of trouble if the disease be deep-seated in the spine or sacro-iliae articulation.

In the case of sinus "the first result of sun treatment is an increase in discharge, spicules of bone and even considerable sequestra being eliminated with the pus." Locally the part is left exposed to the sun and air without dressing in the day time and with a light covering of gauze at night.

Tuberculous glands usually disappear in a few months. Should they soften and approach the surface, they may be aspirated. Dr. Rollier has never incised nor curetted a gland.

Pulmonary Tuberculosis.

Medical men at Leysin and Montana who have sanatoria for the treatment of phthisis, do not use insolation. Nor has Dr. Rollier had much experience of it in these cases, although he thinks there is room for further investigation of the subject. The reactions that follow insolation of the chest are sometimes excessive and he puts this down to the fact that the disease has become one of mixed infection. In any case it should be confined to the extremities for some weeks and then applied to the chest under the strictest supervision. On general principles one would expect at least indirect benefit to the lung from insolation of the extremities alone by improvement in the general health.

Statistics.

Dr. Rollier claims that of over two thousand patients treated since the beginning of the war, 80% were cured, 11% improved, in 7% the process remained stationary and 2% died. We are told that many of these patients were in a deplorable condi-

tion on admission. The result is something to be proud of.

"École au Soleil."

The "School in the Sun" for children from four to twelve years of age, was started by Dr. Rollier thirteen years ago, some five miles from Leysin. There are two main buildings, one each for boys and girls. As the name indicates, this is not a hospital but a school, the only qualification for admission being not real illness, but rather a predisposition to disease and more especially tuberculous disease from malnutrition and want of proper hygienic conditions in the home.

It is generally found that when the child arrives, it has been coddled up with too much clothing. This is gradually dispensed with and after further acclimatization to the new environment of fresh air and sunlight, the child is able to join in the usual routine of the school. This consists of two hours' lessons, two hours' absolute rest and quietness after lunch (not even speaking and reading being allowed) and two hours' play.

Lessons are given in the open. Clothing is reduced to a minimum on sunny days and almost discarded altogether during play hours, even in winter.

With regulated lessons, rest and play in an environment of cheerfulness, fresh air and sunshine and with wholesome food in which butter plays a large part in the cooking of each meal, the child undergoes a transformation. In this respect Dr. Rollier says: "By the use of free exercise in sun and open air we are able to save many sickly and debilitated children from the ravages of tuberculosis and in many cases we see the bodies of patients

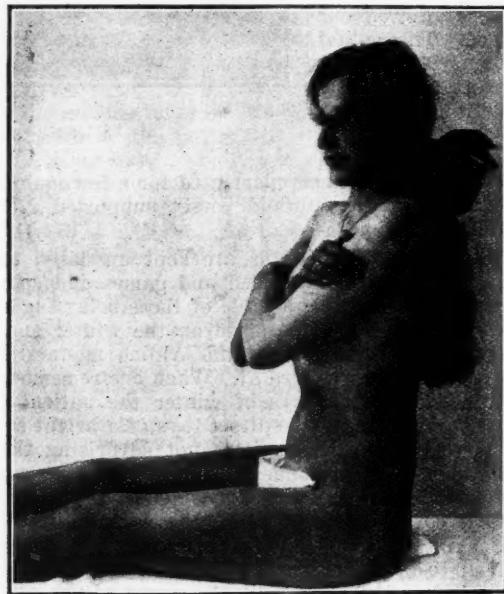


FIGURE III.
The same patient after helio-therapy, one year later. (After Rollier.)

wasted by disease change into harmoniously developed forms of beauty, worthy of the chisel of Praxiteles."

When this stage has been reached, the child is sent home with instructions to the parents or guardians that the new life thus begun under ideal conditions can be maintained in vigour only in an environment of sunshine and fresh air and that if these cannot be obtained in large enough measure in his old home, another one somehow and preferably in the country should be found to supply the necessary demand.

Meteorology.

Leysin is specially adapted for helio-therapy in its comparative freedom from winds, its elevation above sea level and its suitability for treatment all the year round. The absence of wind is an important feature where insolation is employed on the naked body; the elevation above sea level is advantageous because the intensity of ultra-violet rays and the total solar radiations that reach the earth without absorption by the atmosphere, are greater in high altitudes; its suitability for treatment all the year is apparent from the fact that the difference in intensity of these radiations between summer and winter is not great and less than in lower altitudes.

Furthermore, the shade temperature is lower and this is an important factor in insolation. It is found that treatment is best tolerated when the shade temperature or temperature of the air is not too high, from 18° C. to 21° C. (64.5° F. to 69.8° F.) being probably the tolerable maximum.



FIGURE IV.
Female, aged ten years, Potts's disease.
(After Rollier.)



FIGURE V.
The same patient fifteen months later.
(After Rollier.)

A high temperature of the air is enervating to the patient during insolation and for this reason the early morning between six and nine o'clock is considered to be the most suitable time for exposure in summer. It is true that the intensity of ultra-violet rays is less at these early hours than between eleven and two, but the temperature of the air is so much higher towards noon that it more than counter-balances the advantages during the latter hours.

Attention to this point—early morning treatment—is all the more necessary in lower altitudes and still more in countries whose normal shade temperature is above the tolerable limit.

It is specially to be borne in mind that insolation is carried out for exposure not to the sun's heat rays, but to its light rays. The reaction to the former should therefore be minimized as much as possible by carrying out the treatment when the shade temperature is comparatively low. What is aimed at is not a "hot air bath," but a "sun bath."

That the result is due to the absorption of radiant energy and more especially the extreme violet rays of the solar spectrum there can be little doubt. This has been demonstrated by the use of mercury vapour lamps and other sources of artificial light which give us rays with an even shorter wave length.

Whether and to what extent the red and infra-red rays at the other end of the scale have a share in bringing about a cure is not definitely known. They are certainly more penetrating than the ultra-violet rays and presumably therefore their effect if any, is on the deeper tissues. In this connexion Dr. Rosselet remarks in a most interesting chapter in Dr. Rollier's book: "We believe that everyone of the wave lengths of the solar radiation finds in the variety of tissues of our organism one which will absorb it and which will in this way permit it to exercise its chemical action."

According to this authority solar radiations absorbed by the skin bring about bactericidal activity, vasomotor dilatation with hyperæmia of the skin, increased activity of the sebaceous and sweat glands and increased formation of lymph, leading to cicatrization and closing of the sinus or, as the case may be, the discharge of small sequestra. He considers that pigmentation is an important element in the tolerance of the skin to sunlight and the cure of the disease. Once the skin is pigmented it radiates heat better through an increased sensitiveness of the vasomotor reflexes and thus regulates the heat of the body much better than the unpigmented skin.

It is on this principle that superfluous clothing is gradually discarded at the "School in the Sun" during the period of acclimatization. Dr. Rollier maintains that extra clothing, instead of being a protection against cold, only makes the child more susceptible to the influence of atmospheric conditions, as the vasomotor reflexes become sluggish and fail to respond sufficiently to either heat or cold.

Whether the absorption of light rays leads to local action on the affected and more especially the deeper tissues, they consider problematical. But while direct action may be disputed, indirect action is universally admitted. This is specially demonstrated by general increase in body metabolism and improvement in general health. What appeals to the observer most of all, are the appearance of well-being, the plumpness and strong muscular development in patients who had been confined to bed for perhaps a year or two. It is decidedly impressive.

Dr. Rosselet sums up his conclusions thus:

The direct local action of light on a deep-seated tuberculous lesion has neither been proved nor disproved. It would therefore be a mistake if in the present state of our knowledge it were to be denied categorically. The indirect action is well founded on fact. Light absorbed by the skin gives rise to numerous and useful reflexes; absorbed by the blood the energy given out by the radiation is stored and carried in the blood stream to every part of the body. When liberated it stimulates the intra-cellular processes of oxidation and reduction. This condition is the probable explanation of the increased metabolism of the body, of the improvement in the general health and of the increased resistance to disease—both present and threatened.

By bringing this great therapeutic agent to our notice, Dr. Rollier deserves world-wide recognition and gratitude. He has demonstrated, as no one else has done, the potency of Nature's free gift of aero-therapy and helio-therapy. He has shown us the

power of this agency in the cure of many otherwise hopeless cases of so-called surgical tuberculosis and proved that the name is a misnomer. He has gone further and shown, as Dr. Saleby has so forcibly reminded us, that in helio-hygiene light has been thrown on the cure of rickets, *la maladie de l'ombre par excellence* and allied diseases. He has gone further still and shown that fresh air and sunlight can not only cure, but prevent. Well and worthily has Sir Henry Gauvain given him the place of "High Priest of Modern Sun Worshippers."

No medical man visiting the old land should fail to visit Leysin. He will be most kindly and hospitably received by Dr. Rollier and his staff and will come away a humbler, wiser and better man.

NOTES ON A VISIT TO AMERICA.²

By L. J. J. NYE, M.B., Ch.M. (Sydney),
Atherton, North Queensland.

HAVING just returned from a visit to America it occurred to me that a few notes on knowledge I have acquired by visiting some of the leading hospitals, might be interesting to some of our members. Most of my information has been obtained from the Mayo Clinic which is the most efficient organization conceivable, each department in medicine and surgery being administered by its own particular specialists who have been carefully selected for their outstanding ability from the various hospitals of the States and Canada. The hospitality and courtesy which is meted out to visitors, is truly extraordinary and in this they appear to take their cue from their great leader, William J. Mayo, who is at all times "the perfect host."

In endeavouring to make comparisons I feel that one is most forcibly struck by the closer cooperation existing between surgeon, pathologist, radiologist and physician. This is especially noticeable with regard to the pathologist who always follows his particular team of surgeons and for whose use there is generally a special pathology room in the immediate vicinity of the operating theatres. When a surgeon removes some tissue or a tumour, it is immediately sent to the pathologist who examines sections by freezing the tissue with carbon dioxide snow, cutting and staining with polychrome methylene blue and within three to five minutes is back in the theatre to describe in person his findings to the surgeon and students. The same is the rule for the radiologist and physician in gastric and other obscure cases, so that the operation is for them what the necropsy is for the surgeon and there is no doubt that it tends to produce greater efficiency.

Anæsthesia.

Amongst anaesthetic agents ethylene is gaining many supporters who are unanimous in asserting that it is nearer the ideal than any other anaesthetic. It is an olefiant hydrocarbon gas and is a constituent of illuminating gas. It is administered

² Read at a meeting of the Queensland Branch of the British Medical Association on September 5, 1924.

with oxygen similarly to nitrous oxide. After a very short induction period which is not characterized by any undue excitability, the patients pass into an almost natural sleep and are quite rational again as soon as they leave the operating theatre. It gives better relaxation than does ether, is non-irritating to the respiratory tract and there is practically no post-operative vomiting. The advantages of its use are most strikingly demonstrated in cases of chronic hypertension and in poor "surgical risks." Its one disadvantage is that it is highly inflammable and two explosions have already been recorded, in one of which the gas was ignited when cautery was being used at a neck operation and the patient succumbed a few hours later from pulmonary hemorrhages.

Local anaesthesia is gaining favour everywhere and is almost exclusively used at Crile's Cleveland clinic. The caudal and trans-sacral block methods have definitely proved their superiority over general anaesthesia in selected cases and it is very comforting for the surgeon to be able to perform prostatectomy in an arterio-sclerotic old man or hysterectomy in an old woman without subjecting the patient to the risk of a general anaesthetic. In these cases the nurse "psychist" plays a very important rôle in the success of the anaesthetic, it being her duty to sit by the patient and by engaging him in pleasant conversation to distract his attention from the operation.

Goitre.

In exophthalmic goitre the mortality has been greatly reduced by the use of Lugol's solution which has been advocated by Plummer who has made a life long study of goitre. He recognized two distinct thyroid conditions associated with increased activity of the gland: (i.) Adenoma with hyperthyroidism with increased basal metabolic rate and (ii.) exophthalmic goitre with increased basal metabolic rate and in addition the nervous signs and symptoms, such as tachycardia, tremors, nervousness and exophthalmos. It is in the second variety of hyper-functioning goitre that Lugol's solution is of such great benefit and since its routine use has been adopted at the Mayo Clinic, the mortality rate has been only 0.3% during the past eight months and post-operative crises are now a terror of the past. Lugol's solution or *liquor iodi compositus* was the iodine preparation selected because, being an aqueous solution of iodine (5%) and potassium iodide (10%), it provides a large amount of iodine in loose combination with potassium. Patients are sometimes admitted to hospital on the verge of a crisis and with basal metabolic rate of + 70 or + 80. After two weeks of treatment with 0.6 mils (ten minims) daily of Lugol's solution well diluted with water, by mouth or by rectum if there is much vomiting, the basal metabolic rate will be considerably reduced, the nervous signs and symptoms will disappear and they go to surgery as good "operative risks." Lugol's solution does not maintain its effect for more than a few days and must be given up to the time of operation. Failure to recognize this fact caused one of the few deaths in

Plummer's series since its use has been instituted. A girl, aged eighteen years, was admitted with a basal metabolic rate of + 87. After the administration of iodine her general condition improved and the basal metabolic rate was reduced to + 57. Treatment then ceased and ten days later the patient underwent the operation for ligation. The day previous to her operation it was found that her basal metabolic rate had increased again to + 75 and the patient died in a typical crisis sixteen hours after the operation.

Care must be exercised in selecting cases of goitre for treatment with iodine, as it has been repeatedly demonstrated that patients with adenomatous goitre without hyperthyroidism have been rendered hyperthyroid by its use.

Treatment of Cancer of the Jaw.

Treatment of cancer of the mandible and maxilla by resection of these bones has been replaced by burning out the growth with massive cautery applied with small soldering irons and by the use of diathermy and the implantation of radium emanation seeds, after which the glands of the neck are thoroughly dissected out. These radium emanation seeds are very much in vogue. They are made by sealing up the emanations from radium in small glass beads which remain potent for seven to ten days after which they either slough out of the wound or become encysted in the tissue. After a combination of these treatments the affected portion of the mandible or maxilla becomes thrown off as a sequestrum with the result that there is little disfigurement. Rarely is it necessary to ligate the external carotid and there is marked improvement in the end results.

Bone Surgery.

Distinct advances are being made in bone surgery. Intramedullary bone grafts are now considered obsolete by most orthopaedic surgeons because they do not belong to the medullary cavity and in most cases they only act as fixation agents. Massive bone grafts, beef bone plates and beef bone screws are now much used, the beef bone can be sterilized by boiling and it eventually becomes absorbed in the tissues. The results are so good that metal plates and screws have been almost entirely displaced.

Scarlet Fever.

In pathology Dick's new scarlet fever antitoxin and toxin-antitoxin are being largely used throughout the States and it is anticipated that in the near future scarlet fever will no longer be a menace to the community.

Broders who originated the idea of grading malignant tumours according to the degree of differentiation of the tissue cells, has now graded some thousands of tumours and reports an almost certain cure after efficient surgery in all grade I. tumours and 100% mortality in grade IV. tumours, thus establishing beyond doubt that the degree of migration of cancer cells seen in stained sections of the tissue has a definite relation to the prognosis and that grading of tumours is therefore of material assistance to the surgeon.

Episiotomy.

In obstetrics De Lee, of Chicago, performs mediolateral episiotomy in about 90% of *primiparae* and this operation is becoming more and more popular throughout the States for one can certainly demonstrate an almost normal vagina after child birth.

Rickets and Tuberculosis.

Ultra-violet therapy administered by the quartz lamp promises to be a great adjunct in the treatment of diseases when there is a calcium deficiency.

In treatment of rickets and other allied conditions its usefulness has been recognized for some time past. And now those who advocate it, claim 80% to 90% of cures in bone tuberculosis and it is being used with considerable success in pulmonary tuberculosis. In many skin lesions its local and general application produces excellent results and it is becoming a very popular therapeutic agent for the unspecialized practitioner as well as for the dermatologist.

Quite the latest craze is the treatment of colds by the inhalation of chlorine gas. The patients sit for one hour in a chamber in which there is one part of chlorine gas to six parts of air. The treatment is very popular and apparently efficacious.

There are many other improvements in treatment and technique to describe which, I fear, would make this paper too long and I will therefore conclude by expressing my appreciation of the numerous courtesies I received while in the United States and Canada. Wherever one visits the people go to a lot of trouble to make one's stay both pleasurable and profitable. Contrary to what I had expected I found their professional men not boosters, but just ordinary keen and conscientious workers who are quite pleased to tell one everything they know and who are not too proud to learn something from another, however humble he might be and one cannot but feel proud to claim blood relationship with them for they are "real fellows."

A PEEP INTO THE PAST: EARLY AUSTRALIAN SURGERY.

By NORMAN J. DUNLOP, B.A., B.Sc., M.B., Ch.M. (Sydney), Consulting Surgeon, Newcastle Hospital, New South Wales.

PART II.

(Continued from page 476.)

BLAND operated in a morgue! Do not laugh derisively and say, "What a dirty ignoramus! What a back number!" He was neither the one nor the other; he was up-to-date and as clean as the cleanest of his generation. It is difficult in discussing medical matters of a hundred years ago not to think in terms of the twentieth century. We have moved on a step or two since the time when Bland was famous as a surgeon, but only a step or two. Although the surgeon of a hundred years ago was ignorant of many things which the second year medical student now regards as self evident truths, he was no fool; and we have no reason for self-laudation, for how many things are there of which we ourselves are still in the blackest night of ignorance? The doctor of the next century, if there will be such

an individual then,¹ will criticize our crudities and smile at our clumsy methods of dealing with problems. Bland did really good work in the same morgue and got results which were remarkable and equal to those obtained by the best surgeons anywhere in the world. Listen! "There have been no deaths from any operation performed in this institution (Benevolent Asylum) during the past five years and only two or three deaths have taken place during the past thirteen years after surgical operations and these occurred from causes which neither medicine nor medical assistance could prevent" (Benevolent Society's Report, 1846). We must remember that all these operations were performed at a time when there were no general anaesthetics,² no clinical thermometers and no stethoscopes. Antiseptics as such were unheard of³ and ignorance reigned as regards the tremendous value of sterile water. The surgeon had, to be sure, a special dress in which to operate, but it was nothing like the uniform adopted by the present-day surgeon. The surgeon whom we know, renders himself as aseptic as possible before operating; he has a bath, changes his ordinary clothes for a suit of snowy white, wears a mask, a cap and theatre boots, not forgetting his rubber gloves. The surgeon of one hundred years ago also changed his garments before doing any surgery, but these were replaced by others—operating clothes—more evil than those he removed. This operating outfit, kept on the hospital premises, was usually soiled and stiff with blood and fluids from previous surgical efforts. Our surgeons are surprised if suppuration occurs and they want to know the cause; the old-time surgeon was surprised when suppuration did not occur and would ask himself the reason why. It was just this little question "Why?" that brought about a revolution in surgical procedure. With these preliminaries over, let us make a survey of Bland's operations and his contributions to the medical literature of his time.

Ligation of the Innominate Artery in 1832.

Bland's operation on the innominate artery is said to be the third known case (*Historical Records of Australia*, Volume XIV.). It is very difficult to say with any degree of chronological precision that a certain operation is absolutely the *n*th on record. It seems to be the rule that, when we have settled the matter to our own satisfaction, quite a number of claimants materialize, who tell us we are in error and that they have a prior claim to the honour. It really matters little where Bland's case comes chronologically, but we are certain that it was one of the earliest known operations on the innominate for aneurysm of the subclavian artery. Garrison in his "History of Medicine" tells us that "Valentine

¹ This statement is made because the profession is being split up into many specialties, each of which will, in all probability, be a separate profession one hundred years hence. It is said it takes nine tailors to make a man; in A.D. 2000, the saying might be, it takes nine or more practitioners to make a doctor.

² The first time that a general anaesthetic (chloroform) was administered in Australia, it was given by Dr. Alleyne in 1852 at the Sydney Hospital for the amputation of a girl's leg for strumous disease (Watson: "History of the Sydney Hospital").

³ Antiseptics have been used for centuries in an empirical way, but it required Lister to place their use on a true scientific foundation.

Mott, of Long Island, a pupil of Astley Cooper and a pioneer of vascular surgery, was the first in the whole history of surgery to ligate the innominate." This operation was done in the year 1818. Abraham Colles is said to be the first man in Europe to do the operation and Carl Ferdinand von Graefe in 1822 ligated the artery, being the first surgeon in Germany to do so. If there be no other claimant, then Bland's operation is the fourth in the series. I think, however, we are quite safe in giving Bland the credit of being the first Australian surgeon to ligate this vessel. In contemplating pre-anesthetic surgery, one wonders what one should admire most, the daring of the operator or the heroism of the patient. It was on March 26, 1832, when Bland operated on John Mullen. It is interesting to note the age of the patient; he was only twenty-nine years old when he first noticed a lump at the root of the neck. Aneurysms are not usually found at such an early age. Mullen had been suffering for at least two years before coming under the surgeon's care. But let us hear Bland tell his own story:

The subject of the operation had perceived a small and throbbing tumour immediately above and about mid-length of the right collar bone two years ago; six months afterwards he became affected with superficial pain across the breast, resembling a sensation of tightness, but without any dyspnoea. There was also considerable pain and numbness extending along the right arm down to the wrist and sometimes as far as the extremity of the first phalanx of the fingers, although the sensibility of the whole limb continued equal to that of the left side. He was now placed under surgical treatment, the tumour at this time, according to his statement, throbbed considerably, although not larger than a small pigeon's egg and, in fact, hardly perceptible when the patient was in the recumbent position. From that period to the present, when he placed himself under my care, the treatment had been merely palliative, having consisted of two bleedings about six months ago—during the first six months; the application of a rag kept wet with cold water night and day—and an aperient pill every morning, with some other occasional laxative as required. Also, now and then, when there was considerable pain, a grain of opium at bed time. The increase of the tumour from its first observed commencement has been gradual and regular. The general health which continued good during the earlier periods of the disease, has of late become gradually impaired and within the last few days seriously so. He has, however, no other perceptible aneurysmal affection, nor any disease of the heart. The pulse which two or three

days before the operation at which time he first came under my care, had ranged between 100 and 104, but was regular on the day before and the day of the operation, fell to about 60, had become intermitting and in every other respect was irregular.¹ There was also almost insupportable pain in the left side; the tongue was arid and the dorsum covered with a dense blackish fur; he could not lie any length of time on his left, in consequence of the above severe pain and finding equal difficulty in lying on the right side, which had continued during the latter periods of the complaint and was occasioned by it. The operation in which I was assisted by Dr. Fattorini, my medical colleague at this institution, was performed this day in the presence of Drs. Smith, Ross, Rutherford and Jacob. The patient being placed in a horizontal position on the table with the head supported by pillows, an incision was made through the integuments, extending upwards about two inches from the atlantal edge of the sternum, in the direction of the fibres of the subjacent sterno-hyoid and thyroid muscles and about inch and a half downwards below the atlantal margin of that bone, for the purpose of obtaining sufficient room for the subsequent steps of the operation. The sternal insertion of the mastoid muscle was now divided and the dissection further prosecuted by careful separation of the fibres of the sterno-thyroid and hyoid muscles in their longitudinal direction, partly with the edge, and partly with the handle of the scalpel (blunt dissection). The forefinger was now cautiously inserted through the cellular substance down to the *arteria innominata* and that vessel having been separated from the adjacent nerves, the needle was slowly and deliberately introduced. The ligature consisting of two threads, was now tied with much care and with sufficient firmness, it was conceived, to cause the division of the inner coat of the vessel, and the wound was covered with light dressings. Immediately after the operation, *haustus cum liq. morph. acet. m. xxv. ex aq.* was administered.

After Treatment and Progress of the Case.

Bland was unremitting in his attention to his patient. He visited the sick man three times always and occasionally four times a day and very seldom did he pay a visit to the hospital without doing something. The printed record of the case tells us everything down to the minutest detail. Here we have the day of the month, the number of the day since the operation, the number of times he visited the hospital and the hour of each visit and the treatment ordered or given. In his treatment he relied chiefly on venesection, purgation, sedatives and low



FIGURE I.
The heart, together with the portions of the arterial tube implicated in the disease, or concerned in the operation, has been carefully preserved. The above is a correct sketch of the parts.

(From *The Lancet*.)

¹ Until stethoscopes were introduced to Australia, about the year 1845, auscultation by the direct method was practised by the doctors. The ear was placed directly against the chest with or without the intervention of a towel.

diet. The total amount of blood drawn from Mullen's veins was 157½ ounces, but the surgeon regretted afterwards that he did not bleed the man with a more liberal hand. In his description of the operation and after treatment, Bland makes use of many quaint terms and expressions with which we do not meet very often in the present day medical literature. For instance:

"The incision extended up about two inches from the atlantal edge of the sternum"; the patient had "slight pain in the *scrofula cordis*"; the patient was ordered "an *emplastrum lyttae*"; "the blister was dressed, blood not in the least 'buffed'"; "*persteo*"; "the patient had some morbid heat"; "*cynanche stationary*." These and other expressions give us a picture of the old time surgical ward. With mental vision we can see, here a wound bathed in laudable pus, there a foul smelling sphacelus, the ventilation is poor, which causes a feeling of oppression and the whole atmosphere is heavy with the odour of disease. The author of the book of Isaiah must have been either a surgeon or a patient in a surgical ward. Hear his testimony¹: "From the sole of the foot to the crown of the head there is no soundness in it, but wounds and bruises and putrifying sores; they have not been closed, neither bound up, neither mollified with ointment." Mullen endured the pain of the operation with Spartan-like courage, assisting the surgeon as far as he was able. The operation over, the tumour subsided rapidly, it lost its pulsations and the patient felt greatly relieved. Although the operation cut off a considerable part of the blood supply of the brain, there was no disturbance of the sensorium. The character of the pulse varied from "hard and full" to "neither full nor hard." Great general improvement followed the tying of the artery, the patient had perfect use of both arms and ability to lie comfortably in any position. The record and case notes say: "March 31st, wound healthy; April 1st, wound healthy. Patient, against advice and warning, insisted on getting up for half an hour. April 5th (10th day), wound fast closing and filling up; discharge creamy, but less copious; tumour increasing in size, measurements from 3 to 4 inches. April 7th (12th day), pulse 84, clean, regular, moderately firm, wound healing fast, tongue clean, appetite good. April

12th (17th day), haemorrhage from wound, 4 a.m.; 7 p.m., second haemorrhage; obscure pulsations, or faint irregular thrillings in the tumour, which is still increasing in size. April 13th (18th day), bleeding from wound, 2 a.m.; second bleeding at 6 a.m., about 10 or 12 ounces; patient died at 7 a.m."

There are two significant dates here: April 1, when the patient, against advice and warning, insisted on getting up; and Friday, April 13, when he died.

Sectio Cadaveris.

In the presence of Drs. Smith, Rutherford, Ross, Johnson and other medical friends, Bland opened the body some hours after death and carefully removed the heart, together with the arch of the aorta, *arteria innominata*, the right carotid and subclavian arteries, including the aneurysmal tumour. He found that:

(i.) The pleura and contiguous cellular substance had in no way been injured by the operation; (ii.) the wound had been almost entirely closed from the fundus up to the surface, so that not more than a teaspoonful of matter was found in its cavity; (iii.) the ligature which encircled the innominate artery, close to its grand divisions, had almost completed the division of the artery; (iv.) the carotid artery was completely occluded throughout its entire extent by solid coagula and that two-thirds of the *arteria innominata* itself had become closed by a solid plug of coagulum adhering to its walls, while, on the contrary, the subclavian from its commencement up to the aneurysmal tumour itself still remained pervious and whence alone, no doubt, the fatal haemorrhage had proceeded. This portion of the subclavian also seemed on careful examination to be slightly enlarged and its coats somewhat thickened. The axillary artery was pervious and contained no coagula. The heart, together with the portions of the arterial tubes implicated in the disease or concerned in the operation, has been carefully preserved. Figure I. is a correct sketch of the parts.

Observations by Bland.

The principal difficulty experienced in the operation was the separation of the artery and the passing the needle; to obviate such difficulties on the future occasions, I have had a needle constructed upon an entirely new plan which will accompany this paper and I hope it will be found to answer the object intended (see Figure II.). With regard to the propriety of the present operation after consulting with the medical gentlemen present, we formed the unanimous opinion

that no other operation from the advanced state of the case seemed to offer any chance of success and that without an operation the patient could not possibly survive more than a few weeks or days. The operation was adopted at the repeatedly expressed and earnest wish of the patient himself, who at that time was under extreme bodily suffering as well as mental anxiety. The after treatment was conducted with the general view of allaying the irritation



FIGURE II.—DESCRIPTION OF THE NEEDLE (from The Lancet).

and reducing the sanguiferous system to as low a state as seemed consistent with the safety of the patient and the rapid repair of the unavoidable injury from the operation and then of carefully preserving it in this state. Hence considering the reduced state of the patient (the consequence of his long protracted and painful disease), the copious bleedings at the commencement, accompanied with the lowest possible diet and again by repeated small bleedings afterwards. The fatal result I attribute, partly perhaps, to the somewhat diseased state of the artery, but still more to a want of decision on the fourteenth and fifteenth days after the operation, in not having bled with a more liberal hand, an error which arose solely from my doubt as to the cause of the excitement, inasmuch as I had discovered that an equal or greater degree of excitement had occurred in a former instance, e.g., on April 1st, from the extreme imprudence of the patient. The inflammatory seizure in the last instance seemed to be the mere effect of cold, caught as was afterwards ascertained, by the patient imprudently throwing aside the additional flannels used as a protection to the right side of the trunk and upper extremity and neck. The principal if not the sole source of haemorrhage might have been inferred prior to the death of the patient from the previous history of the case, together with the obscure and irregular thrilling motion in the tumour, as well as its increased magnitude, noticed on April 12th, the day before his decease.

Bland as a Surgeon.

The above case demonstrates the fact that Bland was a bold, skilful operator; with a less skilful operator or one who was not thoroughly acquainted with the anatomy of the region, there could easily have been a death from haemorrhage on the table. Grave operations are very often imperative and dexterous operators are essential, but a man whose idea of surgery begins and ends with operating is, in my opinion, a man with a knife merely and not a surgeon. Bland was a surgeon; he possessed in a pre-eminent degree the scientific spirit, the analytical mind, the inventive genius, the knowledge, the shrewd common sense and those other elements which are essential in the make-up of a surgeon. He resorted to the knife only when other means of treatment had failed or when the case was obviously one which could only be treated by operation. We must admire Bland's powers of diagnosis. In a young man thirty-one years old an aneurysm might easily have been wrongly diagnosed. Surgeons of great or even of world-wide repute, Liston, for instance, have on more occasions than one mistaken an aneurysm for a less serious condition and plunged with fatal results their scalpel into the sac. Australia has every reason to be proud of her pioneers and it is meet that we should not allow their names to remain in oblivion. Bland was connected with the Benevolent Asylum for about half a century and during that long period did a tremendous amount of operative work. The complete catalogue of his operations would be too long for insertion here, but just a few of them will be mentioned to give an idea of the scope and character of his work. Watson, in his "History of the Sydney Hospital," informs us that a second patient (? ligation of the *arteria innominata*) was operated on by Bland in 1838 and that this operation took five and a half hours to complete. This, without doubt, was a surgical orgy and shows that Bland was possessed of bull-dog tenacity. He seems to have been equally at home with the Lilliputian cataract knife

and the Brobdingnagian amputation weapon, eighteen inches long, for he used both with same dexterity. The number of cataract operations he performed is not given, but they are said to be many. In 1844 he operated on a man with an aneurysm of the femoral artery; in this case the external iliac was taken up and tied with complete success. In the same year a tumour of the leg thirteen inches long by nine inches wide and weighing twenty-six ounces was removed. In 1845 the common iliac was successfully tied for an aneurysm of the femoral artery. In this year also Bland amputated a leg high up through the thigh for disease of the knee joint. There were four successful lithotomies in 1845, two in adults and two in children, the ages of the children were three years and five years respectively. In 1846 a large tumour of the neck, weighing seven ounces, was dissected away; a tumour of the hand measuring ten inches by nine and three-quarter inches was removed; a patient with strangulated hernia was successfully operated on; a severe injury to the hand with much haemorrhage was attended to and a tumour of the foot was removed. This list could be extended almost indefinitely, but these cases are sufficient to show that good work was done by the early Australian surgeons. Bland was a voluminous writer to the medical journals and it would have been entertaining had space permitted to have given a *précis* of some of his writings, but that would have extended this article far beyond reasonable limits. I shall, therefore, content myself with giving the titles of just a few of his papers, picked out at random. They are: "Dislocations" (this is an account of his own method of reducing dislocations), "Bites of Venomous Snakes in Australia," "Sanitary Reform" and "The Treatment of Popliteal Aneurysm by Pressure, on a Novel Principle." These papers make interesting reading and are easily accessible, being found in Volumes V. and VI. of the *Australian Medical Journal*.

Two of Bland's Inventions.

One never can forget one's first love! As the thoughts of the Irish A.B. invariably went back to his dear native land and the delights of farming, every time the watch gave voice to that rollicking old chanty: "Once I was in Ireland, digging up potatoes, now I'm in a clipper ship hauling ropes and braces," so Bland's love for the sea, ships and sailors was responsible for his inventing a method of dealing with the outbreak of fire aboard ships. In the earlier attempts at exporting wool from Australia to England outbreaks of fire in wool ships owing probably to defective stowage, damp and other conditions were a real danger. Many ships were damaged or completely destroyed, lives were sacrificed and a very large amount of money was lost from the spontaneous ignition of the wool. These disasters caused Bland to think hard, experiment much and finally produce what he considered to be a sure means of overcoming the fire should it occur. In his brochure entitled, "The Suppression of Spontaneous Combustion in Wool Ships," he gives the details of his method. His idea was to flood the ship's hold with carbon dioxide gas, so

he had generators made which could be placed in various parts of the hold and 'tween decks, with pipes leading to the deck, where the evolution of the gas could be controlled. The brochure was freely circulated both in Australia and in England, where a working model of the apparatus was on view at the Great Industrial Exhibition of 1851. Laboratory experiments and demonstrations at the Sydney Mechanics' School of Arts, were perfect and did all that was claimed for the invention and in England the apparatus gave entire satisfaction under service conditions in several coal mines.

The "Atmotic Ship" was one of Bland's inventions. When the history of aeronautics in Australia comes to be written, Bland's name, like that of Abou Ben Adhem, will, I believe, lead all the rest. In 1851 Bland conceived the idea of an atmotic ship. In a letter sent to Sir Thomas Mitchell on July 6, 1852, he tells us what the atmotic ship was. He says: "I beg to send you a set of plans of an invention of my own—an atmotic ship, the intention of which is, as perhaps the name would imply, for the navigation of the atmosphere... Would not your ingenious and highly scientific improvement on the screw propeller be most applicable to the atmotic? It strikes me it would." The atmotic ship consisted of a sausage-shaped balloon or float, hanging from which and securely attached to it was a car containing accommodation for the crew, passengers, engines *et cetera*. Bland tells us:

The objects of the invention are to ascend and descend in the atmosphere and to sail through it horizontally in every direction, with or against currents; to enable the aeronaut to land when and where he pleases; to expel gas from the float, in whole or in part, at his option; and finally to brail up the float, furl and come at the same time securely to an anchor. The ship is under the progressive action of four screw-propellers—worked, two of them, in the ordinary way by steam, while these again by their impulsive effects against atmospheric pressure, it is expected, will suffice to give full action to the rotary sails, and which latter, it is expected, will be fully adequate

to the working of the second series of screw-propellers, one of which is attached to each of them. The aft rudder steers the vessel laterally.

Hydrogen gas was the medium chosen for inflating the float. The plans and specifications of this invention were sent to a professional engineer in England who made a model of the ship which was exhibited at the Crystal Palace. Another model was sent to the Paris Universal Exhibition. The German Zeppelin bears such a striking resemblance to the atmotic ship that the question naturally arises: Did the Germans have any knowledge of Bland's vessel? The *New South Wales Medical Gazette* for May, 1872, contains the following: "His

idea of the atmotic ship has, we learn by the last mail, become *un fait accompli* and a successful voyage has been made between Paris and a provincial town about one hundred miles distant."

The Character of Bland.

Bland's character was like a beautiful polyhedral crystal. He was the champion of the rights of the weak. "He had a heart that would leap with a burning glow the wronged and weak to defend." He hated tyranny and oppression and would resist them with all his might and main. He was willing even to jeopardize his freedom in defence of what he considered was right and to "drain his dearest veins" in liberty's cause, if need be. He was a fighter! Personal insult he

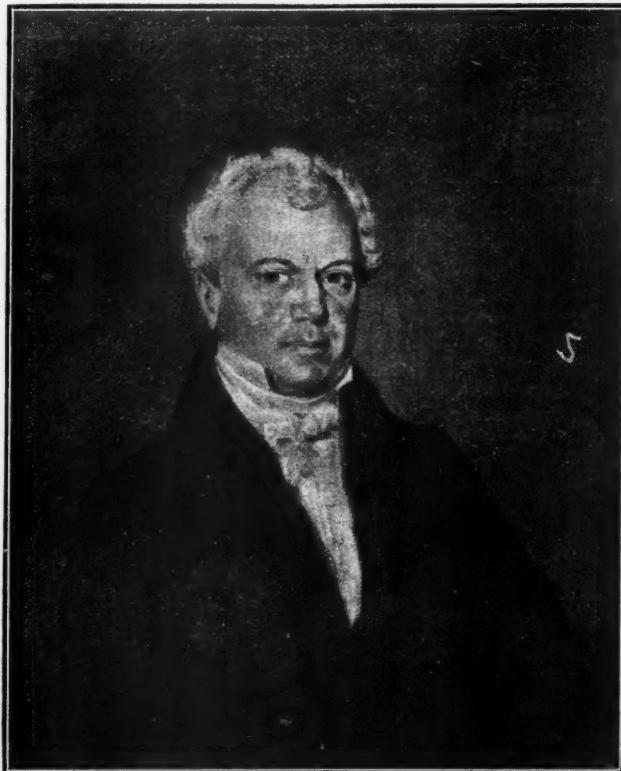


FIGURE III.
William Bland (from a painting).

would not brook and was ready at all times to defend himself against attack; but he was neither aggressive nor vindictive and would never take an unfair advantage of his opponent. He was too transparently honest to be a successful politician; the plaudits of the crowd were to him as the crackling of thorns under a pot. He would never trim his sails so as to catch the popular breeze, although he well knew that by so doing he would gain ferment. Bland had his enemies. What public man is there who is exempt from detractors? But he had fewer than most of his contemporaries. He had

friends, too—scores of them—whose affection for and whose trust in him were both profound and lasting. Bland was a pioneer, an unwilling pioneer, perhaps, but still a pioneer. When he arrived in Australia, this country was more or less a wilderness and his contribution to its development was by no means insignificant. Bland was a philanthropist. We can "write him as one who loved his fellow-man." The poor were his chief concern; he lived for them, worked for them, gave them freely of his best; for their sakes he remained poor and in their cause he died. The poor, the sick and the outcast could say and many of them did literally say it: "Dr. Bland attended me without charge when I was ill; Dr. Bland sent me wine and medicine and nourishment; Dr. Bland paid the funeral expenses of my husband when he died and Dr. Bland was the best friend I ever had." Had Bland so desired it, he could have had "a youth of labour with an age of ease," but he was never rich in those things which are usually counted as riches. Money was certainly poured freely into his hands by the affluent, but money to him was but a means to an end. No one in need, no cause in need ever appealed to him in vain; he had "learnt the luxury of doing good." "His house was known to all the vagrant train; he chid their wanderings, but relieved their pain. He forgot their vices in their woe; and very often, his pity gave ere charity began." The cause of religion ever had a true friend in Bland. In 1839 the people of Ashfield wished to have a place

of worship of their own, but besides being few in number, they were poor and unable to raise the necessary amount of money required by Sir Richard Bourke's *Church Act*. Bland at that time owned a piece of land in the neighbourhood and to his generosity they appealed for help. His response was both immediate and hearty; not only did he give the land, which was worth £150, as a site for the church, but he also gave the sum of £200 towards the building fund, thereby enabling the good folks to build their church. Bland was an Australian patriot. The whole of his life and activities in these lands demonstrate his intense love for his adopted country and its people. He had opportunities many and invitations urgent and many to return and settle at the hub of the universe, but he preferred the sparsely populated land of Australia, with her disabilities, to all the luxuries and advantages of a crowded England. I shall not

attempt to make a psycho-analytical examination of Bland, for fear that I may do him an injustice. To the born psycho-analyst—and he is only one in a thousand—the mind of man may be as an open book, but the average psychological expert cannot explain with any degree of certainty all the whys and wherefores of a man's actions. Burns was not far wrong when he said: "What's done we partly may compute, but we don't know what's resisted." Physically, Bland was not a big man, but he was well built, vigorous and capable of enduring much hardship. Intellectually, although not a genius, he was a giant at a time when the leaders of the people were by no means pygmies. Bland had all the factors that go to make a great man. Bland was a great man—one of the greatest men that Australia has, as yet, produced. Some of the older people still remember with affection, a white-haired old gentleman driving about Sydney in a yellow carriage—the "pill box" it was called. That white-haired old gentleman was Bland.

Appreciations of Bland.

In dealing with the appreciations of Bland, the only difficulty that confronts me is where to begin and where to end. As there is such an extensive Blandiana, I shall content myself with culling at random from the "garden of praise" just a few blooms for insertion here. Wentworth on one occasion said: "I charge you not to forget your tried, devoted and indefatigable friend William Bland. No man has ever served a country with a purer spirit of patriot-

ism; no man has ever more deeply deserved the gratitude of a generous people than he has." At the 1843 election—the first election—Wentworth in an impassioned speech advocated the claims of Bland for a seat in the Legislative Council. During the election campaign of 1848, Wentworth, addressing the electors, made use of these words: "You may by your vote cause it to be written on the tombs of myself and my friend (Dr. Bland): 'Here lie the rejected of Sydney,' but I venture to predict that posterity will in juxtaposition to this epitaph add the words, 'but who gave those who rejected them, the liberty of the press, trial by jury and the constitutional right of electing their own representatives.' I can say more...." Montgomery Martin has an appreciative notice about Bland in his "History of the British Colonies." "The Sydney College," said he, "owes its existence to one private individual, Dr. Bland, who has long been known as



FIGURE IV.
Bust of William Bland.

the Good Samaritan of Australia. Possessed of great skill in his profession, of high general attainments, a gentleman by birth, education and feeling, he acquired the esteem of General Darling and of all classes in the colony. His purse, his time (by night or by day), his splendid talents, his soothing voice and sweet administrations are ever devoted to the poor in their extremity; while his left hand knoweth not what his right hand doeth." In 1856 there was a national banquet to commemorate the fact of responsible government. Bland, "the earliest champion in the cause of autonomy," was requested to preside at this function and he received a phenomenal ovation on taking the chair. One of the daily papers describes the proceedings thus: "Upon advancing to occupy the president's chair, one loud and long continued burst of applause, together with the waving of handkerchiefs by hundreds of fair hands in the beauty-adorned boxes, welcomed Australia's venerable patriot—the philanthropist, the founder of the earliest educational and charitable institutions in New South Wales." The *Sydney Morning Herald* of that date said: "The applause was that of gratitude, respect and love." In 1857 a public meeting was called for the purpose of considering how Bland's Australian services might be recognized, when it was decided to present him with a national tribute, "to consist in part of a gift of money and in part, of a silver memento." It was further arranged that this national tribute should be so planned as to synchronize with his sixty-eighth birthday, on November 5, 1858. The memento took the shape of a splendid silver tripod candelabra, allegorical of benevolence, which bore a chaste inscription. The wording of the inscription, suggested by Mr. Justice Therry, was: "The Bland Australian Tribute, of which this forms a Part, was Subscribed to Commemorate his Bounties to the Poor and the Afflicted, his generous exertions in the Promotion of Education, Literature and the Arts and his Noble and Triumphal Advocacy of the Rights and Privileges of the Colonists as British Subjects, for Forty Years." In the Legislative Assembly on November 26, 1861, Mr. William Wdneyer (afterwards Sir William) moved:

That this House will on Friday next resolve itself into a Committee of the Whole for the purpose of considering the expediency of introducing a bill to confer an annuity upon William Bland.

Before asking Dr. Lang to second the motion, Mr. Wdneyer eloquently reviewed Bland's patriotic and philanthropic efforts. I shall quote just one or two sentences: "In Australia we have no Marathon and no Runnymede; it is to the people, not to the association of place that we must look to give a character to the country. Among the men whose names will be handed down to posterity, will be that of Dr. Bland." The *Australian Medical Gazette* for May, 1872, speaks with authority: "Amongst the most illustrious names that have graced our profession in Australia, whose owners have gone to join the great majority, stands pre-eminent that of the late Honourable William Bland. The numerous inventions of Mr. Bland point him out as one who should be regarded as a benefactor of his race."

The Death of Bland.

"Rest after toil; port after stormy sea."

Happy is the host and happy the guest when the latter does not outstay his welcome and fortunate is the man who dies before he outlives his usefulness and the world wearies of him. Nelson will always remain "the hero, the darling hero of England." Bland was blessed with bodily health and mental vigour right up till the time of his last illness, which happily was short, though sharp. When he died he left not merely Sydney, but the Australian colonies generally, mourning for one who was still a big force in the land. The final scene in the drama of Bland's life was enacted during the month of July, 1868. An epidemic of virulent influenza was raging at the time and this kept Bland "on the stage" day and night. Human endurance is limited and when an individual persists in working beyond his powers, something snaps; this happened to Bland. He had been working on the reserves in his bank of resistance and, when these became exhausted, he fell a victim to the prevailing scourge. On July 7 he was struck down suddenly with a rigor and had to take to his bed. His old friends, Drs. a'Beckett, Bedford and George Bennett rallied round and did all that was humanly possible, but pneumonia in the case of a tired man, seventy-nine years of age, has but one ending. He put up a good fight and was brave till the end, but his vital powers were expended and a fatal attack of syncope at 1 a.m. on July 21, 1868, terminated the career of one of the greatest actors on the stage of Australian development and progress. On Sunday, July 19, the Reverend W. C. Cave, the curate in charge of St. James's Church, visited Bland at 9 p.m. and, finding the sick man "in a most satisfactory state of mind," administered Holy Communion to him, his wife and some friends. At the request of his widow, the Lord Bishop of Sydney conducted the service at St. James's Church, where Bland had been a regular worshipper and also at the grave-side. The funeral left 28, College Street, on July 23, for Haslem Creek, *via* the Redfern railway station and was one of the most representative processions that ever moved through Sydney's streets. Arriving at the railway station, the coffin was deposited for a short time in the Receiving House for the Dead; this was the first time that the Mortuary Chapel was used for such a purpose. At the grave-side the huge concourse of mourners was deeply stirred by the eloquent words of the Bishop and all Nature seemed sympathetic, for even the heavens shed tears on that spot in the cemetery where Bland sleeps the long last sleep of all. It is curious to note that Bland and his friend and colleague in a hundred fights, William Charles Wentworth, both died in their seventy-ninth year. The following letter appeared in *The Empire* for July 24, 1868: "Sir: A glorious old patriot of Australia has passed away from us to heaven. Will Australians—either sons of the soil or by adoption—allow Dr. Bland's name to sink into oblivion? (Signed) George Atkinson." Have they done so? Bland's name should be as well known as that of Wentworth, Dr. Lang or Sir Henry Parkes.

Many *In Memoriam* verses were written at the time of Bland's death. I shall conclude by quoting two verses, one from Henry Kendall's poem and one from that of an unknown author:

And having battled to the end,
'Gainst evil speech and deeds of dust,
He sleeps—the statesman, scholar, friend—
The slumber of the just.

—KENDALL.

Ere Plutus, with his greed for golden treasures
Tore from our Austral soil its teeming store,
He stood, the advocate of honest measures,
In charity, the champion of the poor;
Our institutions own his kind attention,
In sorrow's cause he laboured heart and hand;
And crowds of the infirm and poor will mention
With heartfelt praise, the honoured name of Bland!

Acknowledgments.

I must acknowledge my indebtedness to Mr. Wright, Librarian to the Mitchell Library, for his great kindness and help, also for permission to obtain the portraits of Bland. The staff of the Mitchell Library, I wish to thank for their assistance. I also wish to thank those in charge of the Fisher Library, Sydney University, for a similar courtesy and Dr. Watson, Editor of the *Historical Records of Australia*, for help freely given.

Reports of Cases.

CUTANEOUS HORN OF THE RIGHT UPPER LID.

By J. BROOK LEWIS, M.B., B.S.,

Honorary Assistant Ophthalmologist, Adelaide Hospital;
Clinical Assistant, Children's Hospital,
Adelaide.

Mrs. O., *atatis* forty-four years, came to the Adelaide Hospital in August, 1924, for the removal of a growth from the right upper lid. It was first noticed as a wart and existed in this condition for a year. After scratching it she noticed that the wart started to grow and had been in its present condition for two years. She belongs to a cult who believe that by thinking right thoughts any disease can be cured. As this process was too slow, she consulted a chemist who gave her a caustic

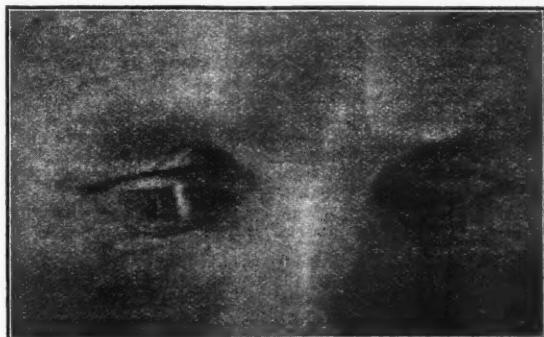


FIGURE 1.—Cutaneous horn.

to apply. She applied the caustic for a week and some of the top of the growth came away. She then came to the eye department of the Adelaide Hospital.

At about the centre point of the edge of the right upper lid was a firm, straight projection seven millimetres long. It projected out in the line of the eyelashes. The first three millimetres from the lid margin were covered with a skin, the remaining four millimetres being horny. The skin gradually shaded off into the horny part. The horny extremity was arranged in five columns which were separate at the extreme periphery and the columns were distinct two millimetres from the end. The growth was removed, the posterior part of the lid being left.

The report on the section contained the statement that the wart was an epithelial hyperplasia; it was further stated that there was no definite evidence of any malignant new growth.

Comment.

This particular disease generally involves the lower lid and I have not seen one figured on the upper lid. It occurs in middle life and its extirpation with cauterization of the base is advised. Epithelioma is said to be likely to follow if its spontaneous fall is permitted to occur.

According to Parsons ("Pathology of the Eye," Volume I.) cutaneous horns are usually solitary, they are conical and have rounded apices. The papillæ at the base are usually hypertrophied and extend upwards a short distance into the horn, stopping sooner in the axis than at the periphery. The essential change, however, is in the prickle cells which proliferate rapidly, the young cells quickly becoming horny without being shed. They thus accumulate and form the main mass of the growth.



FIGURE II.—Cutaneous horn.

THREE CASES OF PUPERAL INSANITY.

By P. LALOE, M.B., Ch.B. (Melbourne),
Senior Medical Officer, Mental Hospital,
Sunbury, Victoria.

I WISH to report three cases of puerperal insanity mainly because of their possible importance, not only from a psychiatric point of view, but also from a prophylactic standpoint in midwifery practice. The points on which I wish to lay stress, are three: (i.) The indications for early treatment on the under mentioned lines when the patient is admitted to a receiving house or mental hospital. (ii.) The adoption of one course of preventive treatment in patients who are known to have had puerperal mania and who have subsequently become pregnant. (iii.) When toxæmias of pregnancy, such as hyperemesis or threatened eclampsia, are known or suspected by the obstetrician, this treatment should be tried from a prophylactic point of view on account of the possibility that the condition might subsequently become one of puerperal mania.

Clinical Histories.

CASE I.—R.M., aged twenty-nine years, was admitted to hospital on October 23, 1922. According to the history sheet she had been noisy, violent and disordered in her conduct and remained so until February 5, 1923. She was then given vaccine treatment, improved rapidly and was allowed out on trial on March 17, 1923. She has not since returned. Her last pregnancy occurred two years ago and I would like to emphasize the fact that for over three months after the onset of symptoms she was without vaccine treatment. In about six weeks after it was tried, she was fit to go out on trial and is still out.

CASE II.—B.U., aged twenty-five years, was admitted to hospital on December 23, 1923. She was noisy, irrational and sleepless and remained so with various periods of sanity lasting only a few days. She was in an excited condition for the greater part of five months. According to her history her last child had been born five days prior to her admission to Royal Park. Vaccine treatment was commenced here after she had been in a maniacal condition for five months and two months later, on July 19, 1924, she was fit to go out on trial. She has remained well. The point I wish to make in this case, is that the patient was maniacal for five months and showed no signs of improvement until she received vaccine treatment. She then improved rapidly and has remained well since.

CASE III.—O.B., aged twenty-two years, was admitted to the Royal Park Hospital in 1923. She had been an inmate of a private mental hospital on account of puerperal mania which had occurred a few days after the birth of her second child. She was in a typical confusional condition, mute, passively resistive and occasionally destructive. She remained in this condition for about eight and a half months until vaccine treatment was started. At first no appreciable effect was noticed, but after two courses of vaccine treatment extending over two and a half months she was allowed out on trial and was quite well. It is interesting to note that in this patient there occurred a subsequent enlargement of the thyroid gland. Her weight also increased from forty-eight kilograms to sixty-four kilograms. This suggested that there was some endocrine deficiency. The patient has made a remarkably good recovery.

Treatment.

Treatment has been carried out by means of a vaccine prepared by the Commonwealth Serum Laboratory. Two series of vaccine were used. Number I. series contained twenty million streptococci, twenty million *Bacilli coli communes* and one hundred and twenty million *Staphylococci aurei* in each 0.2 cubic centimetre. An initial dose of 0.3 cubic centimetre was given by hypodermic injection. In four days an increased dose of 0.6 cubic centimetre was given and so on at intervals until 1.5 cubic centimetre had been given in a dose. After an interval of a month if no result was obtained or if the result was insufficient, a second course of Number II. series was given. The vaccine of Number II. series was of the same composition as that of Number I. series, but was made up to twice the strength. The same doses and the same intervals were used in the second course as in the first.

Comment.

Of course it is obvious that no deduction can be made from three cases. It would seem, however, that a new safeguard in the preventive treatment of puerperal insanity and the possibility of a new addition to our prophylactic treatment of the toxæmias of pregnancy may be assumed.

Acknowledgment.

It would not be just to conclude without stating that this work was commenced by Dr. M. Gamble, late Medical Superintendent at Kew Mental Hospital, and Dr. R. Naylor, present Medical Superintendent of the Mental Hospital, Beechworth.

I have to thank Dr. J. K. Adey for permission to publish the above cases.

Reviews.

LABORATORY AIDS TO DIAGNOSIS.

THE fifth edition of Dr. James Campbell Todd's book "Clinical Diagnosis by Laboratory Methods" is intended as a working manual of clinical pathology.¹ The present edition has been revised and in many places rewritten. The author insists that this has been necessary on account of the numerous advances that have been made in this branch of medical science. The author has laid most stress on methods and microscopical morphology and he states that much of the new material has been added as a result of the regular contact with students in the class room and laboratory.

The book opens with a useful introduction on the use of the microscope. The subsequent chapters are devoted in turn to the examination of various body fluids, secretions and so forth. Thus chapters are given up to the consideration of the sputum, the urine, the blood, gastric and duodenal contents, the faeces, animal parasites, pus, puncture fluids and animal inoculation. An interesting fact is brought under notice with regard to guinea pigs. The author states that if guinea pigs are exposed to X-rays before inoculation with suspected tuberculous material, their natural resistance will be so lowered that typical tuberculous lesions will become manifested within two weeks. The dosage of X-rays required to produce this effect is set down. The author makes no mention of the expedient of mechanically bruising the regional lymphatic glands to effect the same purpose.

Chapters follow on miscellaneous examinations, sero-diagnostic methods, bacteriological methods and the preparation and use of vaccines. The Wassermann test and reaction are described in detail. In regard to the method of carrying out the test it is a little surprising to find that the incubator method, which has so long been discarded by workers in most laboratories, is still the method described by the author.

It is difficult to decide whether the book will be more useful to the general practitioner or the pathologist. The author has given minute details on simple laboratory methods which should prove of great value to the clinician. Side by side with this elementary work, however, are given methods of doing colloidal gold tests with the cerebro-spinal fluid, the Wassermann test and so forth. He has also given methods of carrying out examinations in blood chemistry. These often require an advanced knowledge of chemistry, serology and the like and should in many instances only be undertaken by skilled bio-chemists or pathologists. There is such an abundance of valuable material for both clinician and pathologist that the book should find a place in the library of both.

MARRIAGE OF THE SYPHILITIC.

THE thesis of Dr. Katsainos's book, "Marriage and Syphilis," is that a person afflicted with syphilis, being "always a spirochæte carrier" should never be allowed to become a parent.² How this counsel of perfection is to be attained is not made clear by the author, but we gather from his vigorous condemnation of the attitude of medical men and especially medical women, to the problem that the profession should be the instrument of reform. The moral is pointed and the tale adorned by pictures of congenital syphilitic monstrosities culled mainly from the works of the younger Fournier. No one could read this book without being impressed by Dr. Katsainos's earnestness of purpose, but his intemperance of thought and expression makes it impossible to take him seriously.

¹ "Clinical Diagnosis by Laboratory Methods," by James Campbell Todd, M.D.; Fifth Edition, Revised, Enlarged and Reset; 1923. Philadelphia and London: W. B. Saunders Company; Melbourne: James Little; Demy 8vo., pp. 762, with 325 illustrations, including 29 in colour.

² "Marriage and Syphilis: A Treatise on Eugenics," by George M. Katsainos, M.D.; 1923. Boston: Wright and Potter Printing Company; Demy 8vo., pp. 162, with illustrations.

The Medical Journal of Australia

SATURDAY, NOVEMBER 15, 1924.

The Panel Doctor.

THE medical profession in Australia has delivered its verdict on the question of the introduction of national health insurance based on any of the existing schemes. The verdict comprises two parts. The first reads: There is no need for such an expedient in the Commonwealth. The second part is even more direct. The medical profession is opposed to all known systems of national health insurance. But in spite of this determination the subject cannot be lightly dismissed. The Royal Commission on National Health Insurance will issue a report in due course and this report will contain the recommendation for the institution of some form of health insurance. The Federal Committee of the British Medical Association in Australia has submitted to the six Branches a skeleton of a scheme which may be converted into a workable and acceptable system. The friendly societies are opposed to national health insurance, because it is claimed that these great institutions cater in an adequate fashion for the medical attendance and sickness insurance of the employed classes. It may be pointed out that if the Government inaugurates a health insurance scheme, the medical profession would insist that the administration should not be entrusted to the friendly societies.

Friendly society insurance is limited to contributors, that is to employed persons. The medical benefits are not extended to individuals whose earnings exceed a certain fixed amount. The *National Health Insurance Act* of Great Britain also imposes a restriction in this direction. Unemployed and the unemployable are not entitled to medical attention. In Australia the employed can and do avail themselves of the advantages offered by the friendly societies. If there is a considerable section of the employed population of wage-earners who are not members of friendly society lodges, the fault lies with the uninsured and not with the

system. It is, however, doubtful whether such a class exists. On the other hand national insurance has been devised as a remedy for pauperism and destitution. Disease is an aetiological agent of destitution, for it is always costly and the disablement occasioned by it, cuts off from the whole family its source of supply if the disease affects the bread winner. It must therefore be apparent to every sociologist that if national health insurance be needed in Australia, it is for the unemployed and the unemployable.

There is always much to be learned concerning this very important matter from the annual reports of the Ministry of Health of Great Britain. In the fifth annual report which covers the twelve months ended March 31, 1924, it is pointed out that the total number of insured persons in England entitled to medical treatment was 12,500,000. The cost of medical benefit for these insured persons was approximately £7,363,000, of which £5,856,000 was received by the medical profession for treatment. In addition a sum of £191,000 was distributed among medical practitioners in the country on account of mileage. In the current year the sum of £250,000 will be set aside for this purpose. No medical practitioner may accept responsibility for more than 2,500 insured persons. An independent court of inquiry took evidence and adjudicated on the matter of the capitation fee early in January, 1923, with the result that it was decided to reduce the capitation fee to nine shillings per insured person from January 1, 1924, until December 31, 1927. This reduction has been made because the cost of medical benefit and administration was not covered by the contributions of the employee, the employer and Government as prescribed by the *Act*. The trade depression associated with excessive unemployment has continued since 1922 and has led to financial embarrassment and the need for a temporary adjustment of the bill for medical benefit. The cost works out at 11s. 10½d. for each insured person *per annum*, while the contributions amount to only 9s. 6d.. The balance of 2s. 4½d. will be met by an encroachment on the funds of the approved societies, on the moneys in the Central Fund, for which the Government is responsible for two-ninths, and on the interest from certain

insurance funds. The total amount involved is £1,762,000. The medical profession has loyally recognized the position and has accepted the verdict which cuts off 18% of the payment for treatment.

The Insurance Committee has determined to maintain as high a standard of medical attention as is compatible with so large a service. No less than one hundred and fifty panel doctors were called to account for various breaches of the terms of service and the sum of £3,787 was withheld as penalty. The most serious offence was prolonged, improper fee charging, while neglect to provide proper treatment also necessitated the withholding of fees.

A Royal Commission is to be appointed to inquire into the whole system established under the *National Health Insurance Acts*. The public has demanded this inquiry; the medical profession favours it and the Government considers that the time is ripe. The system undoubtedly is in need of revision and amendment. It is a much better system than the best of the systems under the old club régime in England. But it is not ideal and the insured person is justified in requiring a greater degree of efficiency and a more elaborately devised method of team work. The medical profession in England is apparently not dissatisfied with the system today, despite its obvious defects. If we are to have a scheme in Australia, the medical profession must be determined to cast it on more ideal lines *ab initio*. Only a modern service can be wholly acceptable to the medical profession and to the public.

Current Comment.

ARTERIAL HYPERTENSION AND GUANIDINE.

THE causation of arterial hypertension is one of the problems of medicine which as yet remains unsolved. Excess of supra-renal secretion has been regarded as a possible cause, a disturbance in the sodium chloride metabolism has been invoked as an actual factor and reference has been made on more than one occasion in the pages of this journal to attempts to establish a causative relationship between high protein and a permanent rise in arterial tension. The frequent association of arterial hypertension with chronic nephritis is perhaps unfortunate in that it has led in the minds of many to the assumption that the one is the cause

of the other. This may or may not be so and it is still necessary to approach the subject with an open mind.

There has recently been published an interesting paper, bearing on this question, that was read by Dr. Ralph H. Major at the Fifth Annual Session of the American Medical Association in June, 1924.¹ Dr. Major refers to the work of Shaw in showing that extracts of kidney tissue injected into animals produces an elevation of blood pressure which may persist for a short period of time. Shaw thought that the kidney which was undergoing destruction in chronic nephritis, might set free a pressor substance into the general circulation. He concluded, however, that no metabolite had been discovered which was pressor in type. Dr. Major states that while working with Dr. Walter Stephenson he has found a metabolite which is pressor in type and which produces a sustained rise in blood pressure, unequalled by any previously described substance. They began with the assumption that some protein body which is the product of metabolism, has a pressor effect. Fruitless experiments were carried out with urea, uric acid, creatin and creatinin, but satisfactory results were obtained with the guanidine bases. Guanidine is derived from arginine which is one of the primary dissociation products (amino-acids) of protein. It has been shown to exist in the form of methyl-guanidine in the urine of healthy persons. In the course of his experiments Dr. Major used methyl-guanidine sulphate, methyl-guanidine nitrate, dimethyl-guanidine sulphate, guanidine carbonate, guanidine thiocyanate and guanidine hydrochloride. He found that all these raised the blood pressure and maintained it at a high level when injected into dogs. Fifty dogs were anaesthetized and intravenous or intra-muscular injections of from 0.1 to 0.2 grammes of methyl-guanidine sulphate per kilogram of body weight were given. The blood pressure recorded by a manometer connected with the carotid artery, was raised in every instance. "It was often doubled or even trebled with a few minutes" of injection. The high level was maintained for four or five hours. A prompt and persistent fall in pressure was produced by the slow intravenous injection of a 10% solution of calcium chloride, potassium chloride and ammonium chloride in doses of 0.1 grammes per kilogram. *Veratrum viride* and amyl nitrite produced only very temporary reduction in blood pressure. It was also found that in dogs suffering from severe nephritis caused by uranium nitrate poisoning there occurred a definite and persistent fall in the amount of guanidine bases excreted in the urine. The excretion of guanidine bases was then studied in the urine of persons suffering from *diabetes mellitus*, chronic nephritis, essential hypertension and other diseases as well as in the urine of normal persons. While under observation all were placed on a meat-free diet. It was found that while normal persons and patients with a normal temperature and a normal blood pressure had an average daily excretion of one

¹ *The American Journal of the Medical Sciences*, July 12, 1924.

hundred milligrammes, the patients with a high blood pressure excreted an amount which was definitely less. One interesting instance is recorded in which a patient with severe chronic nephritis and with evidence of considerable protein destruction, manifested a high output of guanidine bases, but had a normal blood pressure.

In his concluding remarks Dr. Major states that it is quite possible that kidneys badly damaged by chronic nephritis or only slightly damaged by arterio-sclerosis might be unable to excrete properly these pressor substances. He emphasizes the importance of further studies along the lines that he has taken.

Dr. Joseph L. Miller in the discussion that followed the reading of Dr. Major's paper, stated that sooner or later the majority of patients with so-called essential hypertension, though no lesion of the kidney could be discovered, passed urine containing albumin and casts. He thought it probable that the underlying condition in arterial hypertension might be vascular spasm. He referred to the action of tyramin, a substance derived from tyrosine (an amino-acid) in causing a vascular spasm and rise in blood pressure. He said that if some of dissociation products of protein metabolism were responsible for vascular spasm, the question arose as to whether they produced their effect in certain individuals, because they were present in abnormally large amounts or whether they produced their effect in persons who were incapable of eliminating them normally through the kidneys. If the latter were the correct view (and it appealed to him) the disturbed kidney function would be a primary factor.

RETRO-PERITONEAL CYSTS.

AMONG the rarer conditions encountered in abdominal surgery is retro-peritoneal cyst formation. But scanty information can be gained from text-books as to the varieties and classification of the cysts. For this reason a recent communication by Mr. F. M. Handfield-Jones is welcome.¹ Mr. Handfield-Jones states that there is need for a clear definition of the term retro-peritoneal cyst, because cysts arising from organs, such as the pancreas and kidney, have been so styled. He defines a retro-peritoneal cyst as one lying in the retro-peritoneal fatty tissues with no apparent connexions with any adult anatomical structure save by areolar tissue. He discusses the aetiology of these cysts and demonstrates clearly the importance of the embryological aspect in such a question. In the first place the pronephros, although a rudimentary and temporary structure, may by persistence of its most caudal elements be called to account for some cysts. The mesonephros is characterized by the formation of a series of tubules which normally should disappear. Zuckerkandl found that remains of these tubules could be identified long after the normal time of their disappearance and Mr. Handfield-Jones regards it as quite reasonable to suppose that at times one of these may remain as a vestigial structure and be

a possible origin for cyst formation. Certain retro-peritoneal cysts in the pelvis undoubtedly arise from mesonephric structures. Mr. Handfield-Jones describes shortly the views held as to the formation and development of the metanephros. Union must take place between the terminal collecting tubules and the uriniferous tubules. This union is a most complicated process and slight disturbances of development may give rise to anomalies. Another cause of the formation of retro-peritoneal cysts lies in the irregular development of the peritoneum of the posterior abdominal wall. After the return of the intestine from the umbilical sac to the abdominal cavity, the colon gains its adult position by rotation. During this process of rotation three layers of peritoneum are in contact—the peritoneum of the posterior abdominal wall and the two layers of the mesocolon. For the adult arrangement to be attained two of these layers must necessarily disappear. These are the posterior and the middle layers. Should these two layers fail to disappear completely, small islands of peritoneum will remain behind the peritoneum and these may act as the *Anlage* of a retro-peritoneal cyst.

Mr. Handfield-Jones gives a classification of the several varieties of retro-peritoneal cysts. He distinguishes cysts of uro-genital origin (including pronephric, mesonephric, metanephric and Müllerian) from cysts of mesocolic origin, cysts arising from cell inclusions (teratomatous cysts), lymphatic cysts, traumatic blood cysts, parasitic cysts and cysts of developmental origin in fully formed organs. He states that the classification may not be exhaustive and is assuredly open to criticism. In this arrangement he has entirely disregarded the emphatic statement in the early part of his paper that the term retro-peritoneal cyst should be reserved for those cysts lying in the retro-peritoneal fatty tissues which have no apparent connexions with any adult structure save by areolar tissue. If his original definition is to hold, some of his groups will have to be excluded. In regard to his cysts of uro-genital origin he is not consistent. He gives the history of a girl, aged fifteen years, who suffered from a cyst of uro-genital origin. He describes the operation for removal of the cyst. On the third day after operation clear discharge came from the wound and this later on became more copious and was recognized as urine. The urinary fistula continued for some weeks and finally the kidney had to be removed. The kidney was small, infantile in type, lobulated, but no obvious lesion could be found in it. "That it had some connexion with the cyst seems indisputable." If this was so, then the connexion was something more than areolar tissue. There is no mention of the possibility of the pelvis of the kidney or the ureter having been wounded by the surgeon at the time of operation.

In his concluding remarks Mr. Handfield-Jones states that his aim has been to show how an intimate knowledge of embryology may make clear certain obscure aetiological problems. This he has done, but it is a pity that his effort has been somewhat spoiled by a looseness of thought and a want of accuracy.

¹ *The British Journal of Surgery*, July, 1924.

Abstracts from Current Medical Literature.

DERMATOLOGY.

Eczema.

D. S. D. JESSUP (*Archives of Dermatology and Syphilology*, July, 1924) has recently carried out a series of metabolism experiments in children of one year old and under who were suffering from eczema. As the routine treatment consisted of putting these children on a modified and attenuated diet with a low fat and sugar content, two parallel experiments were tried. In the first instance the constitution of the stools and urine in patients with eczema who were fed on high fat and sugar, was estimated. In the second place clinical observations were made over a period of two years on dispensary patients with eczema. All of these were fed on diets proper for their weights and ages without any reduction of the fats and sugar. They were treated as uniformly as possible with external applications. It was found that no definite change in the eczema was caused by the addition or subtraction of fat or sugar within certain limits and that the eczema disappeared just as readily as in those patients from whose diet these elements had been withdrawn.

Dandruff.

R. H. RULISON AND W. J. HIGHMAN (*Archives of Dermatology and Syphilology*, October, 1924) attempt to classify the following conditions: Steatorrhœa is a sebaceous hypersecretion; seborrhœa is also a sebaceous hypersecretion with the addition of an infection with a micro-bacillus; *pityriasis simplex* is due to spores of Mellassez and *pityriasis steatoides capititis* is due to *Staphylococcus epidermidis albus* in addition to the spores of Mellassez and characterized by thick yellowish scales. These are apparently greasy and on removal leave faintly reddened surfaces, sometimes a little moist; itching is usually present and a diffuse loss of hair occurs. The author quotes Sabouraud who believes there are two basic diseases to be considered: First, seborrhœa caused by the micro-bacillus of seborrhœa and second, *pityriasis simplex* caused by the spores of Mellassez. These two conditions are entirely distinct, the first being a disease of the sebaceous glands, a comparatively deep, obstinate condition, beginning only with the onset of puberty. The second in his opinion has no such connexion with puberty, is extremely superficial and is as strictly confined to the horny layer of the skin as is *pityriasis versicolor*. It is readily amenable to treatment although prone to recur. Seborrhœa produces permanent baldness and the baldness is impossible to prevent. Pityriasis produces a gradual thinning of the hair, which may eventually cause baldness, but is

easily checked and regrowth of the hair may be expected. Seborrhœa is not essentially a scaling disease, pityriasis is always a scaling disease. *Pityriasis simplex* makes an extremely favourable breeding ground for the *Staphylococcus epidermidis albus*. The character of the scales is then altered, but there is no change in the sebaceous glands, no hypertrophy and no excess of oil; it is not a seborrhœa, but a *pityriasis steatoides* or dandruff.

Acute Ulceration of the Vulva.

J. E. R. McDONAGH (*British Journal of Dermatology and Syphilis*, July, 1924) states that acute ulceration of the vulva takes two forms which, though differing clinically and bacteriologically, have many points in common. One form of ulceration is characterized by the appearance overnight of several small crateriform ulcers on the inner lips of the labia. From the ulcers a Gram-positive bacillus known as Döderlein's bacillus or *Bacillus crassus* is to be obtained. The other form of ulceration is characterized by the appearance overnight of multiple erosions on the inner surfaces of both labia. The erosions coalesce, form ulcers and cause a rapid destruction of tissue. From the lesions a Gram-positive fusiform bacillus associated with a Gram-negative spirochete is to be obtained. This symbiotic micro-organism is known as Vincent's organism. The two diseases are alike in that they are ushered in by malaise, high fever and rigors. The lesions are also extremely painful. Of the two the Vincent's infection is the more severe, because it is likely to cause the greatest destruction of tissue. It is possible that the *Bacillus crassus* is a morphological form of Vincent's organism. The Gram-negative spirochete develops from the Gram-positive fusiform bacillus. The Gram-positivity of the latter is less than that of *Bacillus crassus*.

Immunity in Ringworm Affection.

S. S. GREENBAUM (*Archives of Dermatology and Syphilology*, September 24, 1924) states that although trichophytoses and their allied affections are generally treated and regarded as localized diseases, it seems definitely established that general body changes of an immune character occur in the course of some of these infections. In ringworm local lesions may be complicated during their course or even following it by general cutaneous phenomena. These consist essentially of trichophytic erythema, *lichen trichophyticum* and so forth which give evidence of constitutional disturbances. There are many clinical phenomena pointing to the development of what appears to be immunity in certain of the chronic ringworm infections. Such a lesion is scalp ringworm in children which tends to undergo spontaneous cure in early adolescence. In these conditions, however, other circumstances must be considered such as bio-chemical

changes in the scalp secretion at the onset of puberty and a difference in the susceptibility due to difference in the reaction of the sweat, the greater liability being present in those with a more or less definite alkalinity of the sweat. That there is some degree of immunity is certain, but according to McLeod this occurs only in connexion with acute inflammatory ringworm, the degree of immunity being proportional to the severity of the infection. Bloch and Messini working with three animal ringworms infected seventy guinea pigs cutaneously with these organisms and found that immunity developed from six to eight days later. That is the animal could not be infected after this time, constant immunization could only be produced when direct skin inoculation was made and under such circumstances not only did the site of the lesion become immune to further inoculation, but likewise the whole skin surface. Vaccination with one organism also protected against infection by either of the others, showing the close biological relationship the fungi bear to one another.

Metaplasia.

FRED D. WEIDMAN (*Archives of Dermatology and Syphilology*, September, 1924) in studying metaplasia of sweat duct epithelium in acute suppuration obtained the material from subjects at autopsy. One person had died of erysipelas, the other nineteen days after vaccination. In both these dermatoses the inflammatory leucocytic exudate and congestion which are usually seen in severe acute inflammatory processes, were present around all the appendages and in some of the sweat ducts and glands polymorpho-nuclear leucocytes could be found in the lumen. The bare fact of hyperplasia is only worthy of special remark, because it so seldom if ever occurs in these ducts in chronic inflammatory processes, whereas in acute inflammatory processes such as erysipelas and pustular syphilide there is often hyperplasia of the duct cells. Every sweat duct in the sections examined participated in the metaplasia which extended throughout the whole length of the duct. The basal cells rather than those adjacent to the lumen were the site of most activity. Usually two rows of swollen, more or less granular and pale cells appeared in place of the normal single layer of small dense ones and the narrow, slit-like lumen could generally be made out somewhere in the axis of the strand.

Xeroderma Pigmentosum.

A. R. RICH (*Bulletin of the Johns Hopkins Hospital*, September, 1924) has published observations on *Xeroderma pigmentosum* and has reported a case revealing three interesting clinical features. Firstly the disease both in this patient and his elder brother occurred at the age of two years, the age at which children generally commence to live out of doors or in the sunlight. Secondly

the lesions were especially prominent in those areas exposed to the sun, face, neck and backs of the hands. Thirdly the influence of radium therapy was unfavourable except for a transitory improvement. Pathologically the examination revealed atrophy and diffuse pigmentation of the skin with nodular cornified overgrowths of epithelium and freckle-like pigmentation of the neck, face and forearms together with atrophy of the thymus. It is usually stated that this disease follows a course which may be divided into four stages—the stage of inflammation and reddening, the pigmentary stage, the stage of atrophy followed by tumour development. This the author states is by no means the case. Almost all forms of the lesions may be found side by side. In his patient the stage of erythema had not been seen nor was there any history of its occurrence.

RADIOLOGY.

Alimentary Tract.

R. A. RENDICH (*American Journal of Radiology*, April, 1924) refers to the value of radiographic examination in diseases of the alimentary tract. The author trusts more to fluoroscopic than to radiographic methods, using the latter for record purposes. The double meal method is employed and the suspension of barium sulphate in gum acacia is used for the esophageal examination, while for the gastric meal one hundred and fourteen grammes (four ounces) of oatmeal and fifty-seven grammes (two ounces) of barium sulphate in one hundred and eighty cubic centimetres (six ounces) of water with a slice of toast are given. The patient is seen at intervals until the bowel is empty and if necessary a clysm is also used. The author follows the routine method of examination and interpretation. He refers to the difficulty in distinguishing gall bladder lesions but occasionally the enlarged gall bladder may be demonstrated or there may be adhesions of the stomach or intestines in the gall bladder region. Conclusions as to adhesions should only be reached when there is a definite fixation of some section of the bowel. An analysis of over five thousand cases accompanies this article.

Pneumo-Pericardium.

R. H. OPPENHEIMER (*Journal of the American Medical Association*, May 24, 1924) writes on the institution of therapeutic pneumo-pericardium in the treatment of pericarditis with effusion. Pericardial effusion is distressing to the heart's action as it cannot be compressed or lend itself to changes in the heart's size during systole and leads to gradual failure of the myocardium. Air or gas, however, is compressible and offers little resistance to the heart's action. The effusion, if any, keeps the inflamed serous surfaces apart, but when of

great amount it imposes too great a binder on the heart muscle. In the case reported paracentesis was performed with a lumbar puncture needle, 2.5 centimetres to the left of the sternum in the fifth intercostal space. The fluid was syphoned off. About seven hundred cubic centimetres of fluid were withdrawn at a time and air was introduced under slight pressure from special bottles (about four hundred cubic centimetres capacity). This paracentesis was repeated twice and the patient was feeling well and able to return home. The introduction of the air gave greater relief than did the removal of the fluid. The presence of air apparently delays the reformation of the exudate.

Colonic Adhesions.

C. and M. DAVIDSON and D. ROYER draw attention to adhesions about the ascending colon, causing symptoms of chronic appendicitis (*Surgery, Gynecology and Obstetrics*, February, 1924). The condition is frequently overlooked and is one of the common causes of lack of relief of symptoms after appendicectomy. Vague right sided abdominal pain is the rule and usually constipation is associated with it. Barium meal examinations are preferred to the enema and observations are made up to forty-eight or seventy-two hours after ingestion of the meal. Such examination reveals disfiguration of the contour of the ascending and transverse colon which seems to be caused by bands of adhesions passing over the ascending colon and producing partial or complete obstruction of the colon at the point of greatest involvement. There is usually a ptosis of the transverse colon and it is apparently fixed to the ascending colon with kinking and fixation of the hepatic flexure. After forty-eight hours the meal will still be held in the proximal portion of the transverse colon and in the ascending colon, while in severe cases the delay will be still more noticeable. Surgical intervention has proved successful in several cases reported by the authors.

X-Ray Burns.

R. W. FOUTS contributes an article on the physio-therapy of X-ray burns (*Journal of Radiology*, May, 1924). The first degree burn is a reaction sufficient to produce erythema in from three to ten days; this disappears later and is followed by epilation in three weeks. In a second degree burn the erythema lasts longer and is followed by epilation and later desquamation, leaving bronzing and pigmentation of the skin. In the third degree burn the reaction is more intense and is accompanied by burning and itching, blistering and later necrosis, while fourth degree burns manifest sloughing of subcutaneous tissues, fascia and muscle. Various parts are very sensitive to radiation especially the dorsum of the hand, front of the leg, pinna of the ear and the skin over the sternum. A healed X-ray burn is liable to break down after many years.

The author advises treatment by convective heat from a fifteen hundred watt incandescent lamp, actinic rays, diathermy, X-rays and massage. The heat is applied daily for twenty minutes. Actinic rays (air-cooled) were used to maintain hyperæmia for several centimetres outside the ulcer. After healing, massage and manipulation of the surrounding tissue was practised.

Radio-Therapy and Polio-Myelitis.

HERMAN PHILLIPS AND WALTER GALLAND make a preliminary report on the Röntgen-ray therapy of patients with epidemic polio-myelitis (*The Journal of the American Medical Association*, June 7, 1924). The conditions were mild and only a few muscles were involved. The rays were applied with the idea of stimulating the diseased anterior horn cells of the cord. By actually stimulating metabolism in the cells and the adjoining tissues definite relief of profoundly disturbing symptoms, as well as improvement in the paralysis, has been secured. The doses used have been stimulating only and were applied with cross-fire technique to the spinal segments involved, with the following factors: Five milliampères of current at one hundred kilovolts, a filter of four millimetres of aluminium for ten to fifteen minutes and sixty centimetre skin distance. The patient in whom cell stimulation was desired, manifested improvement, while those with hyperæsthesia were unresponsive. Case histories are quoted and further report is to be made.

Radium in Cancer.

W. PILGER (*Journal of Cancer*, April, 1924) discusses the use of radium in the treatment of cancer. The difference between radium rays and short wave length X-rays is very little and the changes in the tissues are practically the same, provided that the relative absorbed doses are equivalent. Equivalent doses are those that produce the same amount of ionization of the air. The selective action of γ rays renders destruction of the tumour cells possible without destroying the normal cells. The nucleus of the tumour cells give evidence of injury and destruction several days after treatment. When mitosis is occurring the changes take place more quickly. Besides this vacuolization of the cell plasma and gradual destruction of the cell itself are found. Further, more or less definite injury occurs to the small blood vessels (obliteration of capillaries) followed by proliferation of the connective tissue. Radium is applied either superficially or buried or by a combination of the two. Where γ rays only are used a two millimetre brass filter is used in addition to the usual silver, steel or brass mountings. Fifty millicuries of radium at one centimetre distance produce an erythema in about twelve hours. Steel needles of 0.4 millimetre thickness containing ten to twelve milligrammes of element should not be buried for longer than twelve hours.

British Medical Association News.

SCIENTIFIC.

A MEETING OF THE QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION was held in the B.M.A. Building, Adelaide Street, Brisbane, on September 5, 1924, DR. D. GIFFORD CROLL, C.B.E., the President, in the chair.

Foreign Body in the Antrum.

DR. H. V. FOXTON showed a patient, a returned soldier, from whose left antrum he had removed a piece of shell. The patient was a permanent artillery man attached to the Commonwealth Military Forces. He had been hit near the left ear by a piece of high explosive shell in November, 1917. He had lost consciousness for a few minutes and apparently had recovered his senses on the way to a casualty clearing station where he was operated on one and a half hours after being wounded. He had continued to suffer from sudden attacks of pain in the left side of the head and to lose consciousness almost at once. He had generally regained his senses in perhaps half an hour. On returning to Australia three months after having been wounded, he had been carefully examined on two occasions, but it had been decided not to operate on him. In 1922 he had been referred to Dr. Foxton on account of nasal obstruction. The septum had been badly deflected and a small amount of pus had been present in the left nostril. The left antrum had contained foul pus and a skiagram had revealed the presence of a large piece of metal embedded in the posterior wall of the antrum. Operation had been performed and a piece of metal weighing almost fifteen grammes (half an ounce) had been removed. At a later date the septum had been operated on and the patient had been much more comfortable since that time. The attacks of unconsciousness were less severe, but an attack usually occurred about once a month and the patient was unconscious for periods of from ten to thirty minutes. Minor attacks also occurred, these were accompanied by a feeling of tightness across the left side of the head and lasted for a couple of minutes. Hearing was practically absent by both bone and air conduction on the injured side.

A Visit to America.

DR. L. J. J. NYE read a paper entitled: "Notes on a Visit to America" (see page 520).

Notes on a Visit to Europe: Heliotherapy.

SIR DAVID HARDIE read a paper entitled: "Notes on a Visit to Europe: Heliotherapy" (see page 515). He also gave an account of his visit to the laboratory of Monsieur Henri Spanlinger. This will be published in a subsequent issue.

A vote of thanks to the readers of the papers was carried on the motion of the PRESIDENT, supported by DR. J. LOCKHART GIBSON, DR. VAL McDOWALL, DR. W. N. ROBERTSON, C.B.E., and DR. A. T. H. NISBET.

A MEETING OF THE EYE AND EAR SECTION OF THE VICTORIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION was held at the Eye and Ear Hospital on August 28, 1924, DR. J. A. O'BRIEN, the President, in the chair.

British Ophthalmological Congress.

A letter was received from the Secretary of the Ophthalmological Congress asking the Section to appoint an official delegate to the Congress. The Secretary was instructed to reply that one member who would be in London at the time, would be appointed to represent the Section.

Siderosis.

DR. A. S. ANDERSON showed a patient who was suffering from siderosis of the eye. An old foreign body was present in the globe. The tension was good and there was no pain, but the iris and lens were stained.

Nasal Deformity.

DR. C. M. EADIE showed a patient who was suffering from nasal deformity of syphilitic origin. He sug-

gested freeing adhesions and inserting a nasal transplant.

DR. FRANK ANDREW drew attention to the difficulty in obtaining a sufficiently large implant.

Fibro-Sarcoma of the Cornea.

DR. JEAN LITTLEJOHN showed a patient suffering from fibro-sarcoma of the cornea. She asked for the opinion of members in regard to the enucleation of the eye. Vision was unaffected, but it had been stated in a pathological report that the condition was sarcoma. It was suggested that another pathological report be first obtained.

Skiagrams.

MR. W. KENT HUGHES showed two interesting skiagrams. In one could be seen a programme pencil cap which had subsequently been removed by suction. In the other could be seen an abscess of the lung which had been drained by the bronchoscope. Full reports of these cases will be published in a subsequent issue.

Episcleritis.

DR. F. J. B. MILLER showed a patient who was suffering from episcleritis following jaundice which had persisted for over three months.

Lenticular Opacities and Aniridia.

DR. L. J. C. MITCHELL showed a girl with extensive lenticular opacities and complete double aniridia. He said that he intended to try the effect of needling on one eye.

Eye Changes Resulting from Traumatic Asphyxia.

DR. MITCHELL also showed a patient who was suffering from unusual eye changes as a result of traumatic asphyxia. The patient, a man, aged twenty-five years, was a taxi-driver. He had been pinned under a car two months previously. The pressure on his chest had rendered him unconscious and on awakening in hospital he had found that his vision was restricted to the perception of hand movements. Numerous petechial haemorrhages had been present on the head, the neck and conjunctiva. A few haemorrhages had been visible in the right fundus and an immense area of exudate occupied the centre of the field. Similar but less extensive changes had been present in the left fundus. At the time of demonstration the exudate had nearly disappeared in the right eye and was completely absent in the left. Vision in the right eye was $\frac{1}{10}$ at the periphery, central vision was absent. Vision in the left eye was $\frac{1}{12}$ ($\frac{1}{12}$ partly) with correction.

A MEETING OF THE SECTION OF NEUROLOGY AND PSYCHIATRY OF THE NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION was held at the Broughton Hall, Psychiatric Clinic, Leichhardt, on August 22, 1924.

Encephalitis Lethargica.

Patients were presented to illustrate sequelæ of encephalitis lethargica. DR. S. EVAN JONES, Medical Superintendent, gave a summary of the patients who had been admitted to the Broughton Hall Clinic during the previous two years suffering from encephalitis lethargica. Of twenty-two patients twelve were male and ten females. The sequelæ followed in an average of two years in the case of the males and one and three-quarter years in the case of the females. The Parkinsonian syndrome was present in eight males and eight females.

The first patient manifested intellectual defect, the intelligence quotient being 61. There was general muscular rigidity and general muscular weakness. The knee jerks were unequal and exaggerated.

The second patient had suffered an attack of encephalitis in 1919. In January, 1923, the left hand had begun to shake. This patient also had intellectual impairment, the intelligence quotient being 77.

The third patient had had an attack of "influenza" in 1919 followed by drowsy condition existing over two years. The blood pressure was 106. Speech was slow, the voice weak. There was mechanical irritability of the muscles, but no muscular tremor. The patient had a tendency towards catalepsy.

The fourth patient had had an attack of "influenza" in 1923 and three weeks afterwards had complained of an

"excited feeling" in the stomach. She had been admitted to Broughton Hall later and whilst in hospital had become lethargic, complaining of burning sensations in the face and chest which were extremely unpleasant. There was loss of epicritic sensibility. Her appreciation of music had disappeared. The condition of the patient illustrated the involvement of the optic thalamus as a sequela of *encephalitis lethargica*.

DR. O. LATHAM described the pathological findings in the brain following upon *encephalitis lethargica*. He showed that in some respects the microscopical appearances were similar to those seen in general paralysis. He described the engorgement of blood vessels with extravasations and haemorrhages of the perivascular sheaths with mono-nuclear cells and lymphocytes and also increase in neuroglial cells. He showed that the main damage was often due to the lowest layer of the cortex in this disease, whereas in general paralysis the molecular layer was most affected. He said that involvement round the aqueduct of Sylvius was a fairly constant feature and the third fourth and sixth nuclei were frequently involved because of their proximity to this area. The lesions were best represented as being the reaction of the cerebral nervous system to the presence of a protozoal organism and so similar reactions were obtained in syphilis, sleeping sickness, rabies and *encephalitis lethargica*.

DR. C. HENRY read a paper on "Hysteriform Fits and Regression of Affect in a Case of *Encephalitis Lethargica*."

DR. A. W. CAMPBELL in opening the discussion stated that *encephalitis lethargica* as seen in Australia was the same as elsewhere. He pointed out the wide polymorphism of the disease and made a plea for better classification on an anatomical basis. He also pointed out that the various clinical phenomena stood related to affection of definite anatomical regions, thus increased tonicity, as seen in Parkinsonism to the paleo-striatum (*globus pallidus*); choreo-athetoid movements to the neo-striatum (*putamen* and *nucleus caudatus*); disturbances of the sense of pain, so well illustrated by Dr. Jones's patient to the optic thalamus; decerebrate rigidity to the mid-brain; affections of the cranial nerves to their respective nuclei; myoclonus or rhythmic movements to bulbo-spinal levels and the various mental disturbances to the cortex of the brain. Inversion of the sleep rhythm (two cases described by Dr. Campbell) was also referable to cortical affection. Lethargy being a general phenomenon was unlocalizable.

DR. ANDREW DAVIDSON congratulated the hospital staff on the manner in which they dealt with the patients.

DR. RALPH NOBLE referred to the general opinion that the lesion in the patients presenting the Parkinsonian syndrome was found in the *corpus striatum* and *substantia nigra*, the latter being looked upon as a lower cell station for the *corpus striatum*. He reported cases of Parkinsonian rigidity presenting increase in plastic tone and the lengthening and shortening reactions which had been successfully relieved by the operation of sympathetic rhizotomy devised by Dr. N. D. Royle. Patients in whom tremor existed in addition to rigidity, did not appear to be so likely to respond well to this method of treatment and this suggested that the tremor was due to involvement of the higher centres in the brain.

DR. C. A. HOGG made a plea for more extensive research into the causal organism of the disease.

DR. J. A. L. WALLACE pointed out that the organism appeared to remain in the nervous system for many years.

NOMINATIONS AND ELECTIONS.

THE undermentioned have been nominated for election as members of the New South Wales Branch of the British Medical Association:

CARRUTHERS, DOUGLAS GORDON, M.B., Ch.M., 1923 (Univ. Sydney), "Highbury," Old South Head Road, Waverley.

ERBY, SYDNEY THEODORE, M.B., Ch.M., 1923 (Univ. Sydney), Wigram Street, Granville.

MORGAN, JOHN, M.B., Ch.M., 1923 (Univ. Sydney), Coast Hospital, Little Bay.

University Intelligence.

A MEETING of the Senate of the University of Sydney was held on October 13, 1924. The following degrees were conferred in *absentia*:

Bachelor Medicine and Master of Surgery: Messrs. K. L. Barry, C. R. Cole, E. C. Egan, D. Fowles, W. L. Gibson, G. R. Gillies, R. J. Jackson and N. A. D. Keirle.

Bachelor Medicine: Messrs. H. B. Cribb, J. C. Thompson, T. Galbraith.

Master of Surgery: Messrs. L. Bamber and C. C. Finlay.

The following re-appointments were made:

Tutor in Surgery at the Royal Prince Alfred Hospital: Dr. Farranridge.

Tutors in Obstetrics: Drs. R. I. Furber, F. Brown Craig and A. J. Gibson.

The resignations of Dr. F. Barrington and Dr. H. J. Marks, as Lecturers in Gynaecology and Diseases of the Ear, Nose and Throat respectively, were accepted as from October 31, 1924. It was decided that a letter of appreciation of the services rendered to the University by these gentlemen should be sent and that applications be invited to fill the vacancies.

On the recommendation of the Advisory Committee of Saint Vincent's Hospital, Dr. B. T. Edye was recommended for appointment as Honorary Surgeon and Dr. W. T. D. Maxwell as Honorary Assistant Surgeon at Saint Vincent's Hospital; Dr. S. A. Smith, Lecturer in Clinical Medicine; Dr. G. R. P. Hall, Tutor in Clinical Medicine; and Dr. H. Hunter as Tutor in Anesthetics.

On the recommendation of the Joint Committee (Sydney Hospital), the resignation of Dr. L. W. Dunlop, as Medical Tutor at Sydney Hospital, was accepted as from September 30, 1924, and the appointment of Dr. Wilfred Evans to the vacancy as from October 1, 1924.

The Honourable Mr. Justice Street (Acting Chief Justice) and Dr. G. H. Abbott were unanimously re-elected representatives of the Senate on the Council of the Women's College.

It was decided that the election of Fellows, to take place on November 10 next, should be held at the Royal Society's Rooms, Elizabeth Street, as formerly.

On the recommendation of the Faculty of Medicine the Senate decided that the Royal Alexandra for Children be recognized as a clinical school for the training of students in medicine, subject to the concurrence of the Board of Directors of the Hospital of the conditions specified.

It was decided also that the practical instruction in obstetrics for fourth year students in the Faculty of Medicine be supplemented by the following:

The present requirements to be increased next year by:

1. Three weeks' attendance at the pre-maternity and post-maternity out-patients' department; not more than three students to attend on any one afternoon and such attendance to follow on the three weeks in residence.

2. A further week in residence in hospital, this extra week's residence to be taken in rotation by the groups after all groups have completed the previous parts of the course.

A MEETING of the Senate of the University of Sydney was held on November 3, 1924. The degree of master of surgery (Ch.M.) was conferred in *absentia* upon Drs. H. G. D. Cookson and J. C. Thompson.

A letter was received from the Director of Education stating that provision had been made by the Government for the establishment of a Chair of Midwifery. It was decided that applications to fill the chair be invited forthwith in Australasia and Great Britain.

A letter enclosing a cheque for £1,404 9s. 10d. was received from the Committee of the Anderson Stuart

Memorial Fund for the fundation of a research scholarship. It was decided that a letter of thanks be sent to the Committee and that the matter be referred to the Faculty of Medicine for the drawing up of the conditions.

The Warden announced that the appeal for a War Memorial for which the sum of £15,000 was asked as necessary for the purchase of a carillon and its installation in the Clock Tower, had been completely successful, more than £1,000 over the sum originally specified having been subscribed.

On the motion of the Chancellor, seconded by the Vice-Chancellor, the following resolution was carried unanimously:

That upon the report of the Warden as Chairman of the War Memorial Carillon Executive Committee announcing that the fund is £1,000 over the sum of £15,000 originally aimed at, the Senate thanks all the subscribers to the fund for their promptness and generosity in responding to its appeal and records with a sense of great obligation, the most helpful interest shown by the press of Sydney.

On the recommendation of the Professor of Physiology, Dr. J. Macpherson and Dr. W. W. Ingram were appointed as Examiners in Pharmacology and Physiology respectively for the forthcoming Third Degree Examination in Medicine.

Obituary.

WALTER HERBERT BARKER.

DR. WALTER HERBERT BARKER, of Ballarat, Victoria, died in his sixty-eighth year on September 26, 1924.

Walter Herbert Barker was born in London in 1856. He attended Brighton College as a boy and in early manhood entered Clare College, Cambridge. Here he graduated in arts and as stroke of the Cambridge crew in the historic inter-university boat race gained distinction in the realm of athletics. The school of St. Bartholomew's was his medical *alma mater* and he directed all his studies subsequent to graduation to the mastery of nervous and mental diseases.

As a specialist in mental disease Walter Herbert Barker held with high repute the positions of medical officer to the Hampshire County Asylum, England, medical superintendent of the Hospital for Insane, Ararat, Victoria, and a similar office in the Mental Asylum at Ballarat.

He was also known as the author of a students' manual on mental diseases, published by Messrs. Cassell and Company.

A man of diverse culture, having obtained the degree of master of arts of the University of Melbourne after coming to Victoria, Walter Herbert Barker will be remembered as a quiet, refined English gentleman. He was fond of walking and after invigorating exercise sought the deep quiet content of the fireside and a book. He also enjoyed the hobby of painting.

He died greatly beloved of his staff. A widow and three sons comprise the family on whom his loss directly falls.

WILLIAM HENRY SEMPLE.

THE death occurred at Kilmore, Victoria, on Friday, October 3, 1924, of Dr. William Henry Semple, who had reached the advanced age of ninety years.

William Henry Semple was born at Stranraer in the south of Scotland and having received his boyhood's education at the Stranraer Academy, joined the roll of medical students at the Edinburgh Infirmary. Graduating in 1864, he travelled for a time as ship's surgeon, visiting America and the West Indies. Subsequently he held for a brief period a medical appointment in connexion with shipping at Liverpool.

William Semple came to Victoria in 1866 and after serving as resident medical officer to the Melbourne Hospital, obtained the degree of doctor of medicine of the University of Melbourne in 1867. Two years later he commenced practice in Kilmore and accepted the position of surgeon to the Kilmore Hospital.

To have followed the practice of his profession for an uninterrupted term of fifty-five years in one centre is the unique record of William Semple. The accumulating years seemed to occasion him no burden and he remained vigorous until a short time ago when he met with an accident which was the immediate precursor of his death.

Of retiring disposition he did not seek public offices, but devoted himself whole-heartedly to professional work. In William Semple a somewhat brusque manner concealed a kindly nature which was revealed on innumerable occasions in acts of private benevolence. Scientific pursuits attracted him strongly and many leisure hours were given to the study of electricity. In professional work he made a close study of the treatment of fractures and embodied in practice principles which he had learned from first hand observation.

One son, Dr. John Semple, and three daughters survive him.

Proceedings of the Australian Medical Boards.

VICTORIA.

THE undermentioned have been registered, under the provisions of the *Medical Act, 1915*, as duly qualified medical practitioners:

ABBOTT, ARTHUR GORDON, M.B., B.S., 1922 (Univ. Melbourne), Dandenong.

ALLEN, THOMAS KINGSLEY RUSSELL, M.B., B.S., 1924 (Univ. Melbourne), 5, Levien Street, Essendon.

ARMSTRONG, WILLIAM, M.B., B.S., 1924 (Univ. Melbourne), Simpson Street, Kyneton.

ASHTON, EDITH MARGARET WINTER, M.B., B.S., 1924 (Univ. Melbourne), "Bishop's Lodge," Grafton, New South Wales.

BERMAN, DAVID, M.B., B.S., 1924 (Univ. Melbourne), 5, Gordon Avenue, St. Kilda.

BLEWETT, JOHN EARLESTON, M.B., B.S., 1924 (Univ. Melbourne), 127, Marshall Street, Ivanhoe.

BROBEN, JAMES ALFRED, M.B., B.S., 1924 (Univ. Melbourne), Ringwood Street, Ringwood.

BUTLER, WALTER MARIO, M.B., B.S., 1924 (Univ. Melbourne), 28, Candy Street, Northcote.

CARNEGIE, ELVIE ALICE, M.B., B.S., 1924 (Univ. Melbourne), "South Esk," Cotham Road, Kew.

CARTER, HAROLD CHARLES RALPH, M.B., B.S., 1924 (Univ. Melbourne), "Merrylands," Wattle Valley Road, East Camberwell.

CLARK, FRANK, M.B., B.S., 1924 (Univ. Melbourne), "Clevedon," Castlemaine.

COLQUHOUN, WILLIAM LESLIE, M.B., B.S., 1924 (Univ. Melbourne), 210, Walsh Street, South Yarra.

COOK, GEOFFREY ALLEYNE, M.B., B.S., 1924 (Univ. Melbourne), 16, John Street, Kew.

CORRELL, ALICE MARY, M.B., B.S., 1924 (Univ. Melbourne), "Athol," Venice Street, Mentone.

CROSBIE, CLEMENT BARRY, M.B., B.S., 1924 (Univ. Melbourne), 15, Lyall Street, Hawthorn.

CRUICKSHANK, FRANCES MAY, M.B., B.S., 1924 (Univ. Melbourne), York Street, Moonee Ponds.

CURRIE, LESLIE THOMAS, M.B., Ch.M., 1923 (Univ. Sydney), Homeopathic Hospital, Melbourne.

DARLING, BESSIE PITCAITHLEY, M.B., B.S., 1924 (Univ. Melbourne), "Warrawee," Cheshunt.

DENNEY, BESSIE, M.B., B.S., 1924 (Univ. Melbourne), 9, Douglas Street, East Melbourne.

DOUGLAS, JOHN CAMPBELL, L.R.C.P. & S. (Edinburgh), L.F.P.S. (Glasgow), 1900; D.O., 1923 (Oxford), Sturt Street, Ballarat.

DOWNES, LOYAL ALLAN, M.B., B.S., 1924 (Univ. Melbourne), 227, High Street, Northcote.

DUNN, JOHN EDWARD, M.B., B.S., 1924 (Univ. Melbourne), 578, High Street, Northcote.

FARGIE, ERIC JEAN, M.B., B.S., 1924 (Univ. Melbourne), 279, Richardson Street, Middle Park.

FARRAR, WILLIAM DYSON LEE, M.B., B.S., 1924 (Univ. Melbourne), 109, Princess Street, Kew.

FARROW, CLAUDE WILLIAM HENRY, M.B., B.S., 1924 (Univ. Melbourne), Sydney Street, Sunshine.

FISHER, RONALD WILLIAM DOUGLAS, M.B., B.S., 1924 (Univ. Melbourne), 11, Mitchell Street, St. Kilda.

GORMAN, ADRIAN PATRICK, M.B., B.S., 1924 (Univ. Melbourne), "Oaklands," New South Wales.

GOYEN, OSBURN BRAMWELL, M.B., B.S., 1924 (Univ. Melbourne), 11, Adelaide Street, Malvern.

GRAFF, ROY, M.B., B.S., 1924 (Univ. Melbourne), "Brompton," Gordon Street, Hawthorne, Brisbane.

HAM, MARY ATHOLL STUART, M.B., B.S., 1924 (Univ. Melbourne), 366, Church Street, Richmond.

HART, DOUGLAS IAN, M.B., B.S., 1924 (Univ. Melbourne), 97, Princess Street, Kew.

HAWKINS, SYBIL JEAN, M.B., B.S., 1924 (Univ. Melbourne), 64, Bennett Street, North Fitzroy.

HERIOT, STUART, M.B., B.S., 1924 (Univ. Melbourne), Ormond College, Parkville.

HILL, ARTHUR ALBERT, M.B., B.S., 1924 (Univ. Melbourne), 108, Wellington Parade, East Melbourne.

HINRICHSEN, WILLIAM HENRY, M.B., B.S., 1924 (Univ. Melbourne), 18, Rennie Street, Thornbury.

HOPE, KENNETH BERTRAM, M.B., B.S., 1924 (Univ. Melbourne), 354, Punt Road, South Yarra.

JUDKINS, HENRY GEORGE, M.B., B.S., 1924 (Univ. Melbourne), 82, Canterbury Road, Surrey Hills.

LEAR, D'ARCY CONNOR, M.B., B.S., 1924 (Univ. Melbourne), 26, Gatehouse Street, Parkville.

LIVINGSTONE, WILLIAM GORDON, M.B., B.S., 1924 (Univ. Melbourne), "Aldersyde," Warragul.

LOCKWOOD, LIONEL M.B., B.S., 1924 (Univ. Melbourne), "Wahoonga," Natimuk.

MAY, ALEXANDER JOSEPH, M.B., B.S., 1924, (Univ. Melbourne), 354, Punt Road, South Yarra.

MILLS, REGINALD ORCHESTON, M.B., B.S., 1924 (Univ. Melbourne), "Carina," Monaro Road, Kooyong.

MITCHELL, HUGH GLASSON, M.B., B.S., 1924 (Univ. Melbourne), "Moreton Hill," Sandford.

MORRIS, JOHN GEORGE, M.B., B.S., 1924 (Univ. Melbourne), Queen's College, Carlton.

MULCAHY, JAMES EDWARD, M.B., B.S., 1924 (Univ. Melbourne), 40, Cromwell Street, Caulfield.

NATHAN, ARTHUR JOSEPH, M.B., B.S., 1924 (Univ. Melbourne), 62, Broadway, St. Kilda.

O'CONNOR, NORMAN JOSEPH, M.B., B.S., 1924 (Univ. Melbourne), 82, Victoria Road, Auburn.

PLAYLE, MARGARET ETHEL, M.B., B.S., 1924 (Univ. Melbourne), Cottong.

POOLE, GABRIEL RUSCOMBE, M.B., B.S., 1924 (Univ. Melbourne), 48, Park Street, South Yarra.

RAISES, HYMAN BERNARD, M.B., B.S., 1924 (Univ. Melbourne), 138, Hotham Street, East St. Kilda.

SHEEHAN, ELEANOR MARCELLA, M.B., B.S., 1924 (Univ. Melbourne), "St. Hilary," Pitt Street, East Brunswick.

SMITH, WINIFRED IRIS EVELYN, M.B., B.S., 1924 (Univ. Melbourne), "Colerne," 17, Elmie Street, Auburn.

STEPHENS, AREN MARIE VAN PUTTEN, M.B., B.S., 1924 (Univ. Melbourne), 21, Winter Street, Malvern.

STREET, RAYMOND EDWARD, M.B., B.S., 1924 (Univ. Melbourne), Fulham Road, Alphington.

SUTTON, SELWYN BLIGH, M.B., B.S., 1924 (Univ. Melbourne), The Vicarage, Kew.

TATE, ALAN ROBERT, M.B., B.S., 1924 (Univ. Melbourne), 1, Canterbury Road, Camberwell.

THOMAS, BESSIE ALICE, M.B., B.S., 1924 (Univ. Melbourne), "Kilmorey," Perth-Fremantle Road, Claremont, Western Australia.

Additional Diploma Registered.

CUTTLE, RONALD, F.R.C.S., 1924 (Edinburgh).

Correspondence.

INJURIES AND DISEASES IN AUSTRALIA ATTRIBUTABLE TO ANIMALS.

SIR: May one add the following examples to Professor J. Burton Cleland's list of injuries attributable to animals in Australia (THE MEDICAL JOURNAL OF AUSTRALIA, October 4, 1924).

Flying Fish.—One saw a man sustain a nasty injury to the eye through being struck by a flying fish. He was in a cutter when a fish flew over the boat. Flying fish only leave the water when pursued by a submarine enemy. Considering the prevalence of these fish and the aquatic habits of man in the Torres Strait (where this case occurred), one wonders that more cases are not heard of.

Crocodiles.—The north coast of Australia and the Cape York Peninsula are infested with crocodiles, some attaining a length of over twenty feet. They are to be found in the rivers and water holes. When sunning themselves on a sandspit, they look like barnacle-covered slimy logs. They are cunning and soon move when a boat approaches within two hundred yards. About three years ago a warrant officer was "lost" from a naval surveying ship working on the North-West Coast. Two days later one-half of his body was found in a water hole. Obviously he had been the prey of a crocodile.

Captain Monckton, a former resident magistrate in New Guinea, reports that crocodiles travelling at night from their water holes, have taken sleeping children and pigs from native villages.

Red Ants.—The river banks of Cape York Peninsula are lined with dense forests of mangrove trees, up the trunks of which red ants are generally seen crawling. On one occasion a naval officer in charge of a landing party disarranged his attire. A red ant alighted from a tree on his prepuce. In twenty minutes the penis had become swollen and twisted, assuming giant proportions. The swelling went down the same day. There were no general symptoms of note.

Stone Fish (Synanceja horrida).—This fish has a wicked reputation in Queensland. Pearl divers, especially "skin divers," that is natives who dive naked and devoid of mechanical air supply, fear it more than they do sharks. The fish has a venom-filled spine. If pricked, man suffers a severe cellulitis. Dr. Norman Markwell, formerly of Thursday Island, told me of a case in which the cellulitis lasted six weeks.

Turtles.—The "leather back" edible turtle (*Caretta imbutata*) and the "shell turtle" (*Chelonia mydas*) grow to a large size in North Queensland. Rarely are they seen down south, though one has noticed a specimen of the former species in winter time off Sealer's Cove, near Wilson's Promontory (Victoria). In the Torres Straits natives catch them by diving from luggers and bending a line to the fins of turtles which in the mating season float on the surface of the ocean fastened in copulation. An occasional native gets snapped by the powerful jaws of the quarry.

Sea Snakes.—Sea snakes are prevalent in the Barrier Reef. They are reputed to be poisonous, especially green ones with red bellies. They will swim round anchored craft without fear. One has never seen a case of bite, but stories are told of them climbing on board up the anchor cable and through the hawse.

Yours, etc.,

KEVIN BYRNE.

Lakemba, New South Wales,
November, 11, 1924.

"INSULIN" IN PREGNANCY.

SIR: In your issue of November 8, Dr. A. J. Corfe inquires what effect "Insulin" has on the unborn infant. It may be of interest to him and other readers if I supply a few notes about a case of this type to which he refers. Some six months ago I was asked to take charge of a *multipara* five months pregnant who had for some years

had a degree of glycosuria that was readily amenable to dietetic restrictions. On examination it was found that the blood sugar was 0.212% and that the urine contained 4% sugar (which was not lactose), diacetic acid and acetone—strong reactions. I found that on a diet calculated to be the lowest on which she could be expected to maintain her weight and nourish the fetus, she still had 2.5% of sugar and much acetone and diacetic acid in the urine, so "Insulin" was given till with about thirty units daily she was sugar and acetone free. On this diet and amount of "Insulin" she remained sugar free, but with occasional traces of acetone in the urine till it was decided to induce labour about three weeks before term. She was delivered naturally of a very healthy child weighing eight pounds. The mother has not had any "Insulin" since a few days after delivery and on a restricted diet, sufficient to maintain her weight, has no glycosuria and the baby seems quite healthy.

Yours, etc.,

C. BICKERTON BLACKBURN.

227, Macquarie Street, Sydney,
November 8, 1924.

Books Received.

COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION, Edited by Mrs. M. H. Mellish; Volume XV.; 1924. Philadelphia and London: W. B. Saunders Company; Melbourne: James Little; Royal 8vo, pp. 1377, with 410 illustrations. Price: 65s. net.

DISEASES OF THE CHEST AND THE PRINCIPLES OF PHYSICAL DIAGNOSIS, by George William Norris, A.B., M.D., and Henry R. M. Landis, A.B., M.D., with a Chapter on "The Electrocardiograph in Heart Disease," by Edward B. Krumbhaar, Ph.D., M.D.; Third Edition, Revised; 1924. Philadelphia and London: W. B. Saunders Company; Melbourne: James Little; Royal 8vo, pp. 907, with 434 illustrations. Price: £9.50 net.

Medical Appointments.

DR. WILLIAM ERNEST HEWITT (B.M.A.) has been appointed Public Vaccinator, at Yackandandah, Victoria.

DR. JOHN C. M. HARPER (B.M.A.) has been appointed Public Vaccinator, at Daylesford, Victoria.

DR. PAUL ERNEST VOSS (B.M.A.) has been appointed Government Medical Officer, at Rockhampton, Queensland, and Health Officer under *The Health Acts, 1900 to 1922*.

DR. JOHN COFFEY (B.M.A.) has been appointed Deputy Commissioner of Public Health, Queensland, as from October 20, 1924.

DR. FRANK TIPPING (B.M.A.) has been appointed Acting District Medical Officer and Public Vaccinator, Three Springs, Western Australia, as from October 1, 1924.

DR. R. D. BARTRAM (B.M.A.) has been appointed Officer of Health to the local Board of Health, at Macclesfield, South Australia.

DR. HENRY RUPERT HAWKINS (B.M.A.) and DR. GEORGE NORMAN LORIMER have been appointed Honorary Medical Officers to the Mount Gambier Hospital.

DR. VICTOR ROY WILSON (B.M.A.) has been appointed Government Medical Officer, at Esk, Queensland.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, *locum tenentes* sought, etc., see "Advertiser," page xvi.

DEPARTMENT OF HEALTH, MELBOURNE: Medical Officer.

Medical Appointments: Important Notice.

MEDICAL practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429, Strand, London, W.C.

BRANCH.	APPOINTMENTS.
NEW SOUTH WALES: Honorary Secretary, 30 - 34, Elizabeth Street, Sydney.	Australian Natives' Association. Ashfield and District Friendly Societies' Dispensary. Balmain United Friendly Societies' Dispensary. Friendly Societies' Lodges at Casino, Leichhardt and Petersham. Dispensary. Manchester Unity Oddfellows' Medical Institute, Elizabeth Street, Sydney. Marrickville United Friendly Societies' Dispensary. North Sydney United Friendly Societies. People's Prudential Benefit Society. Phoenix Mutual Provident Society.
VICTORIAN: Honorary Secretary, Medical Society Hall, East Melbourne.	All Institutes or Medical Dispensaries. Australian Prudential Association Proprietary, Limited Mutual National Provident Club. National Provident Association.
QUEENSLAND: Honorary Secretary, B.M.A. Building, Adelaide Street, Brisbane.	Brisbane United Friendly Society Institute. Stannary Hills Hospital.
SOUTH AUSTRALIAN: Honorary Secretary, 12, North Terrace, Adelaide.	Contract Practice Appointments at Renmark. Contract Practice Appointments in South Australia.
WESTERN AUSTRALIAN: Honorary Secretary, Saint George's Terrace, Perth.	All Contract Practice Appointments in Western Australia.
N.B.W. ZEALAND (WELLINGTON DIVISION): Honorary Secretary, Wellington.	Friendly Society Lodges, Wellington New Zealand.

Diary for the Month.

Nov. 18.—New South Wales Branch, B.M.A.: Executive and Finance Committee, Illawarra Suburbs Medical Association (Annual).
 Nov. 19.—Western Australian Branch, B.M.A.: Branch.
 Nov. 25.—New South Wales Branch, B.M.A.: Medical Politics Committee. Organization and Science Committee.
 Nov. 26.—Victorian Branch, B.M.A.: Council.
 Nov. 27.—New South Wales Branch, B.M.A.: Branch.
 Nov. 27.—South Australian Branch, B.M.A.: Branch.
 Nov. 28.—Queensland Branch, B.M.A.: Council.
 Dec. 2.—New South Branch, B.M.A.: Ethics Committee.
 Dec. 3.—Victorian Branch, B.M.A.: Annual General Meeting.
 Dec. 5.—Queensland Branch, B.M.A.: Branch.
 Dec. 9.—New South Wales Branch, B.M.A.: Executive and Finance Committee.
 Dec. 10.—Tasmanian Branch, B.M.A.: Branch.
 Dec. 10.—South Sydney Medical Association, New South Wales.
 Dec. 10.—Central Northern Medical Association, New South Wales.
 Dec. 10.—Melbourne Paediatric Society.
 Dec. 11.—New South Wales Branch, B.M.A.: Branch.
 Dec. 11.—Victorian Branch, B.M.A.: Council.
 Dec. 11.—South Australian Branch, B.M.A.: Council.
 Dec. 11.—Brisbane Hospital for Sick Children: Clinical Meeting.

Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

All communications should be addressed to "The Editor," THE MEDICAL JOURNAL OF AUSTRALIA, B.M.A. Building, 30-34, Elizabeth Street, Sydney. (Telephone: B. 4635.)

SUBSCRIPTION RATES.—Medical students and others not receiving THE MEDICAL JOURNAL OF AUSTRALIA in virtue of membership of the Branches of the British Medical Association in the Commonwealth can become subscribers to the journal by applying to the Manager or through the usual agents and book-sellers. Subscriptions can commence at the beginning of any quarter and are renewable on December 31. The rates are £2 for Australia and £2 5s. abroad per annum payable in advance.